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U. S. Environmental Protection Agency
Public Water System Supervision Program

Final Report

Program Review for the West Virginia Department of Health and Human Resources Bureau of Public Health Office of Environmental Health Services Environmental Engineering Division

Prepared by The Cadmus Group, Inc.
for
The Environmental Protection Agency
Office of Ground Water & Drinking Water
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I. Introduction

A. Purpose of Review

During the week of July 7, 2008, the "team," consisting of representatives of EPA Region 3, Dan Campanelli, and The Cadmus Group, Inc.: Jeffe Kennedy, Laurie Potter, Valerie Meiers and Kim Clemente; conducted a Program Review (PR) in the West Virginia Department of Health and Human Resources, Bureau of Public Health, Office of Environmental Health Services, Environmental Engineering Division (DHHR). The PR serves a number of purposes:

Table 1: Number of PWSs in SDWIS/Fed and Number Reviewed by the Team

	Number of CWSs	Number of NTNCWSs	Number of TNCWSs
SDWIS/Fed Inventory[1]	505	131	475
Number Reviewed	(29 total)	10	14
Small System	14		
Medium System	12		
Large System	2		
Very Large System	1		

[1]SDWIS/Fed inventory as of 4/3/2008.

Small: < 1,000
Medium: 1,001 - 10,000
Large: 10,001 - 50,000
Very large: ≥ 50,000

- To verify whether information in the primacy agencies' databases and files is correctly represented in the federal Safe Drinking Water Information System (SDWIS/Fed), Cadmus compared DHHR's data to the most recently frozen data in SDWIS/Fed;
- To evaluate whether primacy agencies are determining compliance in accordance with the National Primary Drinking Water Regulations, Cadmus compared DHHR's actions and policies to federally mandated or Region 3-approved rules and policies;
- To identify specific actions that will improve the primacy agencies' public water system supervision (PWSS) programs, Cadmus made recommendations for DHHR that should improve their program;
- To determine whether primacy agencies have implemented recommendations identified in past data verifications, Cadmus asked the states to comment on the recommendations from the previous report and reviewed the answers against the current audit findings (Appendix A contains the list of recommendations and the state answers);
- To garner information on how EPA can assist primacy agencies in implementing the National Primary Drinking Water Regulations, Cadmus solicited feedback from DHHR and made observations based on audit findings. This information should provide EPA with insight on how EPA's assistance has been most valuable and where additional assistance would be effective.

B. Description of Sample

Rather than reviewing every public water system (PWS) supervised by DHHR, the team examined a sample of those systems, with the intention that they would provide a representative insight into the PWSS program. Table 1 identifies the SDWIS/Fed inventory for West Virginia and the number of systems in the stratified, random sample reviewed by the team. The community water system (CWS) sample represents a 90-percent confidence level, with an error tolerance level of 7 percent. The noncommunity water system (NCWS) sample represents an 80-percent confidence level, with an error tolerance level of 10 percent. A detailed description of the sampling methodology can be found in Chapter 3 of the *EPA Protocol for Participation in a PWSS Data Verification*, available from The Cadmus Group, Inc.

Table 2: Periods of Review

Category	Date
Inventory	Most recent
CCR	Year 2006, due 2007
Sanitary Survey	2 most recent surveys
Total Coliform Rule	Jan. 1, 2007 - Dec. 31, 2007
Lead & Copper Rule	2 most recent samples
Phase II/V (except nitrate)	2002 - 2004
Nitrate	2006, 2007
Stage 1 DBPR	Jan. 1, 2007 - Dec. 31, 2007
Revised Radionuclides	Initial and Grandfathered samples
SWTR	Jan. 1, 2007 - Dec. 31, 2007
IESWTR	Jan. 1, 2007 - Dec. 31, 2007
LT1 ESWTR	Jan. 1, 2007 - Dec. 31, 2007
FBRR	Dec. 8, 2003 - Dec. 31, 2007
Public Notice	Per related violation

C. Regulations Reviewed

The team reviewed West Virginia's SDWIS/State Web Release 1 (SSWR1) database, hard copy files and scanned materials for updates to inventory and compliance data for the rules listed in Table 2.

The period of review for each of the regulations is shown in Table 2. Appendix B contains a table that summarizes any data discrepancies between state and federal records and errors in compliance determination that were identified during this review. Appendix C contains a detailed, system-specific list of each discrepancy identified during this review.

II. Primacy Agency Program Summary

This section outlines the program's organizational structure, its waiver program, assistance provided by the state to systems, the data system, and information about sample collection and analysis and laboratories. Each section also outlines successes and challenges from the previous and current reviews, plus recommendations, if warranted, that may help the state improve their program.

A. Program Organizational Structure

The West Virginia Environmental Engineering Division is responsible for implementing the provisions of the Safe Drinking Water Act (SDWA). It is a program within the Office of Environmental Health Services, in the West Virginia Bureau of Public Health. Laboratory certification is also under the aegis of the Bureau of Public Health, in the Office of Lab Services. Communication is good between the

two offices, with personnel talking frequently. The Office of Lab Services has two certifying officers: one for chemicals and one for microbiologicals.

DHHR is divided into five districts, with oversight from a central office. The central office performs most compliance determinations now – more so than in the past – with the district offices confirming information from which compliance determinations were made. The district offices are primarily responsible for inventory, sanitary surveys, technical assistance and construction-related activities. Compliance officers in the central office are responsible for entire districts, performing all compliance determination for all rules for systems in that district. This shift has occurred as a result of increased implementation of SSWR1: the central office now has access to all data rather than being informed of results and decisions by the district offices. DHHR has realized greater consistency from shifting all compliance determination to a single location.

Compliance determination decisions go through a series of checks among compliance officers. Systems are also encouraged to review violations and double-check that data have been received. DHHR has found that mailed and faxed analytical data sometimes are lost. Violation letters are drafted in the central office 20 days after the end of the compliance cycle.

Program Organizational Structure Successes and Challenges

- DHHR experiences a great deal of staff turnover due to salary issues. The lack of a fee program likely contributes to this problem. (Staffing issues also discussed in Sections II.B, C, D and III A, C, F, G, H and J.) In comments to the draft report, DHHR noted that: *There is adequate funding for personnel and positions. A fee schedule will not resolve the problem of a) a large portion of our personnel being at or near retirement; b) younger personnel finding advancement opportunities elsewhere; and 3) a somewhat bureaucratic hiring process for all state personnel.*

- Currently two compliance officers are responsible for all compliance determinations in the state because two other positions are empty. (One position is vacant, the other filled by a person on extended sick leave.)

- Compliance determination is sometimes performed late, which led to a number of discrepancies. The team noted in the previous review that there were many violations from 2002 through 2004 that had not yet been reported to SDWIS/Fed. Reporting was sometimes complicated by a lack of resources for the compliance staff and a lag time in the validation of violations. DHHR reported that all compliance determinations had been completed for data through 2007 and any violations or required sample results had been reported to SDWIS/Fed at the time of the review, in July. DHHR has made an effort to tighten compliance determination time in response to the previous review. However, some violations from the end of 2007 were still being rejected as late as April 2008, which is considerably after 45 days after the end of the compliance period, which would have been mid-February.

Region 3 and DHHR discussed this issue. In comments to the draft report, DHHR noted: *DHHR believes that there are two issues that caused late compliance determination at the end of 2007: one being the lack of a full staff of compliance officers and the other being the end of the triennial cycle. The end of 2007 resulted in the end of a quarterly compliance period, the end of an annual compliance period and the end of a triennial compliance period for different rules. The test results are not required to be received until the 10th of January, and allowing time for data entry, compliance reports cannot be run in SDWIS until January 15th. Two staff are limited on the amount of time to run the reports, research all the potential violations for data input accuracy, failure to input data, etc., for each rule, and for three different compliance periods. DHHR believes that once compliance officers are fully staffed and trained, most end of year compliance periods (and 4th Quarter compliance periods), all potential violations will either be rejected or validated in a timely fashion, but every third year, may still encounter difficulties in timely compliance determination.*

The two entities agreed that DHHR will move some compliance duties to district offices that have a greater number of staff.

- Region 3 and DHHR discussed the issue of lost analytical data. DHHR noted that they have acquired a new fax machine and are looking at mailing procedures for the possibility of creating a mailing log. EPA suggested setting up a "pouch" service for data coming in from the PWS so the state can identify this particular mail from everything else.

Recommendations

1. DHHR together with Region 3 should investigate a fee program or other funding sources to improve staffing so that West Virginia can fulfill its primacy responsibilities.

2. DHHR should continue to explore methods to accelerate compliance determination so that it meets federal timelines. Improved use of SSWR1 would greatly add to this effort (see Section II.D State Data System).

B. Waiver Information

DHHR has maintained a waiver program developed in 1995. Though this policy required vulnerability assessments every three years, the last assessments were done in 1999 and the decisions made then remained as the default waivers for the program. See more discussion in "Successes and Challenges" below.

DHHR is phasing in a new policy called the "Alternative Monitoring Program." Region 3 reviewed this new program along with the Arsenic Rule primacy package. DHHR uses exemptions, but has none active at this time. Some exemptions were granted for haloacetic acids (HAA5) and total trihalomethanes (TTHM), but those have expired.

DHHR waives sixteen contaminants statewide, all synthetic organic chemicals (SOC) plus asbestos. DHHR grants volatile organic compounds (VOC) waivers for up to six years and inorganic compounds (IOC) waivers for up to nine years. SOC monitoring had been waived entirely in the past for some systems, but DHHR is moving away from this policy as not protective enough. New SOC waivers will not reduce systems beyond once every nine years.

Consecutive systems monitor for the Total Coliform Rule (TCR), Stage 1 and 2 Disinfectants and Disinfection By-Products Rule (Stage 1 and Stage 2 DBPR) and the Lead and Copper Rule (LCR). West Virginia considers this an allowance of the rule and not a true "waiver" as CFR §141.29 allows states to consider interconnected systems as one system for monitoring purposes.

Waiver Program Successes and Challenges

- Due to inadequate staffing levels, DHHR has not renewed many individual PWS waivers since 2004. Waivers in only two of the five districts were reviewed and renewed in 2002-2004 and only waivers for two counties were reviewed for 2005-2007. For the counties and districts not reviewed, all waiver decisions made in 1999 were left in place. Region 3 asked after DHHR's course of action to review the outstanding waivers.

- The waiver program reduces the monitoring and financial burden for systems in West Virginia, but imposes a burden on DHHR staff resources that is not relieved by reduced compliance determination work.

Recommendations

1. Systems should not have monitoring waivers if those waivers have not been renewed for the current compliance cycle.

C. State Assistance

DHHR does not have a fee program. The only fees charged are permit fees for construction projects and fees charged by the Office of Laboratory Services (OLS), which charges for lab certification for contaminants tested by PWSs in West Virginia and for analysis of water samples submitted directly to OLS. DHHR does NOT charge operators for certification or training.

State Assistance Successes and Challenges

- In response to questions regarding actions taken since the previous review, specifically what steps Region 3 has taken to address recommendations, DHHR noted that no help was received from the Region. Region 3 expressed that they have no record of DHHR asking for assistance to address previous recommendations and that all recommendations from the previous review were included in the PWSS Reporting Checklist to track state progress on addressing issues.

The documented discussions between Region 3 and DHHR provided as comments to the draft report seem to reflect that a much better foundation for communication regarding the findings of this report has been created.

- Because of the high level of staff turnover, DHHR needs more access to "ground-up" training for brand-new employees. Currently, the mentoring method of training new staff consumes meager staff resources.

- District offices spend a lot of time in technical assistance visits, teaching and training.

- DHHR found Region 3's Ground Water Rule (GWR) training to be very useful and planned to attend upcoming sanitary survey trainings. The program is eager for all the training EPA can provide.

- DHHR sends a biannual newsletter to all WV certified operators. DHHR also contributes to the Public Service Commission (PSC) bimonthly newsletter, which is sent to all public water systems that are regulated by the PSC. DHHR also regularly contributes articles to the West Virginia Rural Water Association monthly magazine that is distributed to all of their members.

- DHHR has seen real improvements in system compliance due to the Area-Wide Optimization (AWOP) program. Through this program the district offices began charting turbidity values for their surface water systems. Once systems were able to visualize the patterns in the values, the operators were able to greatly improve performance and avert problems before violations were necessary.

- Because engineers in district offices are assigned to specific water systems, the DHHR staff have become very familiar with the systems and their monitoring patterns, resulting in better oversight. Engineers frequently visit systems with problems and work with the systems to resolve them. This method of working with systems has been found to be effective for overall compliance (see Section III.C Sanitary Surveys) and particularly for problem systems that tend to receive repeated violations. DHHR has found that these systems tend to have limited resources or aging operators or population, or ownership issues. Frequently capacity development staff will be recruited to step in and assist the system with applying for funding, working with PSC or other third party providers. The benefits of consolidation can also be explored, which West Virginia encourages for PWSs, especially to eliminate small, scattered systems.

Recommendations

1. None.

D. State Data System

Analytical results arrive on hard copy or are electronically transmitted via a downloadable email attachment. The state lab sends copies of data to the central office, district office and the system. The commercial labs send data only to the central office and the system, usually by fax or mail. Only one commercial lab can transmit data electronically. Sometimes labs will send data only to the systems, which results in confusion over whether data have been sent. Region 3 asked DHHR to address this issue.

Hard copy files are maintained in the central office, with copies of all information kept on file for 12 years. After this point, information is archived off-site, along with files for inactive systems. Files for inactive systems are destroyed after 12 years. Sanitary surveys are scanned into "pdf" format also. Analytical data are entered into SSWR1 by the data management section in the central office, scanned and kept on hard copy.

DHHR uses SSWR1, which is accessible on the Bureau server. DHHR was using SSWR1 exclusively at the time of the review, having switched to the program August 1, 2007.

DHHR uses Fed/Rep to transmit data to the operational data system (ODS). DHHR uses Fed/Rep job reports to check for errors quarterly. At the recommendation of Region 3, the state might check these error reports and submit corrections more frequently. Region 3 and DHHR are trying to clear up old enforcement actions for old violations. Region 3 notes that the discussions between the Region and DHHR have been extremely fruitful. DHHR is working on getting SSWR1 and SDWIS/Fed data in synch and trying to clear up all errors over time. DHHR noted in comments to the draft report: *It was discussed with Region 3 that submissions might need to be submitted more frequently to more quickly resolve issues between the SDWIS/State database and the SDWIS/Fed data; however, the corrections made between the May 15th upload and the August 15th upload substantially decreased in the number of errors. An example of this reduction, which was found to be typical, was the Action Error Report. In May, the report was 87 pages in length, where the August report was found to be 4 pages in length. There are a few remaining issues to be resolved in the November upload, but is already near maintenance levels. It now appears unlikely that additional uploads will be necessary to address discrepancies between the state and federal databases.*

Data System Successes and Challenges

- DHHR conducted a review of their data accuracy in SSWR1 and found 95-96 percent accuracy. However, data entry errors caused a number of discrepancies as noted in Sections III.F (Phase II/V) and III.I (LCR).

- DHHR is relying more heavily on SSWR1 which has aided in more consistent compliance determination. However, the program is not performing compliance determinations for rules that DHHR feels the SSWR1 calculator handles inadequately (i.e., Stage 1 DBPR), Surface

Water Treatment Rule (SWTR), Interim Enhanced SWTR (IESWTR), and Long-Term 1 Enhanced SWTR (LT1 ESWTR)) or is generating incorrect violation dates for rules for which SSWR1 has not been correctly formatted (i.e., LCR). While SSWR1 does lack some functionality in that SSWR1 cannot require, for example, TCR repeat samples to have matching chlorine residual samples, it can be used to automate compliance determination with some knowledgeable adjustments (e.g., resetting the LCR monitoring dates). Further, while SSWR1 is a useful tool, rule implementation should be conducted according to the requirements of the federal regulations, not simply within the parameters of the SSWR1 software.

Region 3 asked if DHHR had communicated this issue to the SDWIS help desk and, if so, had the SDWIS help desk responded back to DHHR with a resolution (or work around) or a schedule for a future fix.

DHHR noted in response: *There were issues in the automated compliance determinations in SDWIS/State 8.1, but those have been addressed in SSWR1. It is apparent from these comments that the changes made in SSWR1 have not been communicated with the compliance officers. There was an issue with MRDL compliance determination that did work properly with SDWIS/State 8.1, but DHHR data entry staff was, unknowingly, overwriting the SDWIS computations. Corrections had already been made at the time of the last review, but 12 months had not elapsed for SDWIS to compute true MRDL values. Training of compliance officers in how SDWIS computes compliance appears to be in order.*

- A great deal of duplication was found in the hard copy files. Several copies of the same proof of public notification (PN) would be present, or multiple copies of the same set of analytical results.

- Several instances were identified where violations had not been correctly rescinded from SDWIS/Fed. Region 3 notes that this is an ongoing activity between the state and the Region, and that it is West Virginia's responsibility to ensure that rescinded (i.e. invalidated) violations are communicated to Region 3 so that they can be deleted out of SDWIS/Fed.

- DHHR finds that SSWR1 helps with compliance determination and finds the web accessibility to be useful, but the program runs slowly, which could be attributed to the server speed.

- DHHR is waiting for the SDWIS contractor to provide new tools, such as adapted "SWMIR" and SOX (return to compliance) reports. Also, DHHR used to use SDWIS/State 8.0 to send PWSs letters with revised monitoring schedules following an maximum contaminant level (MCL) exceedance. This tool does not yet work with SSWR1. Region 3 asked DHHR to determine a schedule of when the SDWIS contractor will provide these tools.

- DHHR's biggest data management problem at this time is staff resources. The current database administrator has been "temporarily" acting in the position for the last six years. DHHR notes in comments to the draft report: *While the person that has been serving as the database administrator for the past six years isn't the person that ultimately will have that responsibility, this does provide valuable resources during times of transition between new personnel learning the position. The database administrator position has changed four times over the past six years and fortunately one person has been available to act in the temporary position.*

- In comments to the draft report, DHHR noted that SSWR1 is slower than SDWIS/State 8.0. The team notes that this can certainly be an issue with SSWR1, depending on the hardware configuration and network infrastructure.

Recommendations

1. DHHR requires training in using SSWR1 to its fullest capacity, along with assistance in tailoring the modules to perform more automated compliance determination for the program. The portion of the rules that are not implemented because DHHR feels the SSWR1 calculator does not work, can in fact have automated compliance determination, if data are correctly entered and the modules are tailored to state business practices. Region 3 agrees and encourages DHHR to schedule training for staff on SSWR1. DHHR notes that this is the same issue responded to under Data System Successes and Challenges.

2. DHHR should address the issue of labs sending data only to the systems and not copied to DHHR.

3. Data entry accuracy should be revisited. Region 3 suggested that DHHR should consider the source of the errors and address them as soon as possible to ensure data quality. Region 3 notes that this is an ongoing activity between the state and the Region, and that it is West Virginia's responsibility to ensure that rescinded (i.e. invalidated) violations are communicated to Region 3 so that they can be deleted out of SDWIS/Fed.

   DDHR noted that the recommendations and challenges described in Sections III.F (Phase II/V) and III.I (LCR) do not support the statement that data entry errors caused the discrepancies noted in these sections. DHHR takes the position that most of the errors noted are related to empty positions (vacant or absent) for the compliance officers. DHHR has recently hired a manager for the Data Management position, who has been tasked to develop a quality assurance and quality control (QA/QC) process for the data entry process.

4. Region 3 should assist DHHR further in correcting errors and ensuring that rejected violations are rescinded from SDWIS/Fed.

E. Sample Collection, Analysis, and Laboratory Certification

Systems are responsible for collecting their own samples, except for a small percentage of systems that contract with commercial labs that provide sample-collection along with analysis. DHHR only collects special-purpose samples, usually along with sanitary surveys. The West Virginia State Laboratory, which has branches in two locations, analyzes 50 to 75 percent of all bacteriological samples and charges the systems for doing so. All other analyses are conducted by commercial labs.

Sampling and Laboratory Certification Successes and Challenges

- Samples are usually hand-carried to labs, as distances are not great and the postal service poses holding time obstacles. Even using special handling services, many samples cannot be sent by mail since some rural areas do not have daily mail pick-ups.

Recommendations

1. None.

III. Program Implementation

This section outlines program implementation, successes and challenges from the previous and current reviews, and recommendations that may help the state improve their program.

A. General Program

West Virginia holds primacy for all current rules, except Stage 2 DBPR, Long Term 2 Enhanced Surface Water Treatment Rule (LT2 ESWTR), LCR Short-Term Revisions (STR LCR) and GWR. Stage 2 DBPR and LT2 ESWTR were to be adopted July 17, 2008, as soon as a 30-day public comment period ended. DHHR plans to ask for an extension agreement until 2009 for GWR as the program is not yet ready to implement the rule. DHHR plans to submit a primacy package for GWR in April 2009.

General Successes and Challenges

- Though West Virginia holds primacy for Stage 1 DBPR and LT1 ESWTR, these rules are not being fully implemented by the state at this time. Systems have been trained and are ostensibly monitoring and reporting according to the new rules, but compliance determination had not yet been done at the time of the review, due to lack of staff resources. Nor is Region 3 implementing the rules for West Virginia. Because compliance determination had not been done on these systems at the time of the review, it could not be confirmed whether all systems are monitoring and reporting according to the new rules or not.

- To improve monitoring compliance, DHHR sends reminder notices with "pre-violations" to systems one month before their monitoring deadlines. For example, notices will be sent in June for CCRs or in August for LCR. The letter describes what the violation will be if the system does not comply in time.

- West Virginia requires daily sampling of chlorine residuals in the distribution system and all systems are required to chlorinate. All systems submit a monthly operating report (MOR) with this information.

- Violations of state requirements that are more stringent than federal requirements are not reported to SDWIS/Fed.

- A number of samples were reported late, but monitoring and reporting (M/R) violations were not assigned. The previous review found that if analytical results are received more than 10 days after the end of a compliance period, DHHR deletes the violation and a return to compliance code (SOX) is entered into SSWR1. The PR team noted that this practice of deleting "reporting" violations was not acceptable. DHHR says they no longer delete violations and none were noted in the current review. Instead it seemed some late reporting violations were never assigned.

- DHHR referred to about ten systems that typically monitor for no rules and are significant non-compliers (SNCs). Region 3 and DHHR should work together to bring these systems into compliance.

Recommendations

1. Region 3 should not grant primacy for any rules that West Virginia is unable to fully implement.

B. Inventory

DHHR's inventory information is maintained in SSWR1 and also in the system files. Populations are derived from the 2000 census calculations by county. Service connection numbers are often obtained from the PSC. Other inventory information is primarily derived from sanitary surveys and secondarily from updates provided by owners and operators. District office staff also review information with the systems, especially the contact information. DHHR staff use their SDWIS contractor's program Safe Water Information Field Tool (SWIFT) to make inventory updates in the field. This information is uploaded by district office staff to a shared drive as sanitary survey reports are completed. The data are uploaded to SSWR1, using the EPA developed program, Migrate to State, on a regular basis by central office personnel.

Inventory Successes and Challenges

- In the previous review, some inventory discrepancies (for population, service connections, system type, system status, and source) were identified and it was recommended that DHHR encourage the district offices to update inventory information in SSWR1 for upload to SDWIS/Fed. DHHR reports that they are now using Fed/Rep and ODS Reports to address inventory discrepancies. This appears to be quite successful as no inventory discrepancies were identified in this review.

- DHHR now requires notification of operator certification status.

Recommendations

1. None.

C. Sanitary Survey

Primarily hard copies of sanitary surveys in the system files were reviewed, along with some scanned versions. Sanitary surveys are conducted by staff in the district offices, usually the engineers although environmental resource specialists may also be used. Engineers handle the large surface water systems exclusively, and all surveys are reviewed by engineers. The central office also spot checks the surveys.

All district offices use the same sanitary survey template, from the SDWIS contractor's "SWIFT" tool on tablet computers, which improves consistency and ensures all elements required by IESWTR and LT1 ESWTR are reviewed for all systems. The SWIFT program can download current data on the system to be inspected, including previous deficiencies. The district office supervisors meet two to three times per year to review the software, formatting issues and develop consistent definitions.

DHHR staff undergo EPA sanitary survey training, but no certification is required. A new employee will also "shadow" an experienced staff person on sanitary surveys for several months. DHHR also provides new staff with EPA's sanitary survey booklet and checklist on "how to do a sanitary survey." Training of new staff takes about six months.

Surface water and Ground Water Under the Direct Influence of Surface Water (GWUDI) systems are surveyed every three years, beginning in 2003. Ground water systems are typically surveyed every five years, while many noncommunities have been reduced to a ten-year cycle. See "Successes and Challenges" below. Frequency of surveys is tracked through SSWR1 and an MS Access schedule.

About 20 personnel across the district offices conduct the sanitary surveys, which is about 35 percent of their workload (including administrative tasks, and report writing and review). A district

office engineer will then spend the rest of his or her time on construction permits and plan review, infrastructure, funding, complaints, and technical assistance.

Most sanitary surveys are scheduled about one week ahead of time. Surprise sanitary surveys are not done, but surprise visits might be. DHHR will stop in at systems when they're in the neighborhood, partly to see if any assistance is needed, but also to check that an operator is present.

Deficiencies are discussed on-site with the system during an exit meeting. Report letters are sent to the system usually two weeks later. The cover letter identifies significant deficiencies. SWIFT will identify whether deficiencies have been resolved at a subsequent sanitary survey. Otherwise district office staff will often stop to visit a system to ascertain what deficiencies have been addressed. District offices use a database to track deficiencies and report those to the central office each month. The central office then lists all outstanding deficiencies by severity each month and circulates the list among the compliance officers and the district offices. SWIFT also breaks out deficiencies into significant and moderate default categories.

Systems have 45 days to address significant deficiencies or the system will be in violation. If corrections will take longer than this – if, for example, funding must be obtained – then the system must explain in writing to avoid a violation. DHHR can issue administrative orders (AO), both with penalty and without, if meeting with and assisting the system doesn't work. EPA might also be asked to step in. Correction of deficiencies can take anywhere from one week to five years.

Copies of sanitary surveys are routinely shared with the PSC and with local health departments. Capacity development staff sometimes use the surveys, along with private engineering consultants hired to assist PWSs to correct deficiencies. The sanitary surveys are often used as tools for PWSs to obtain funding to make needed corrections.

DHHR staff most often assign deficiencies for missing cross-connection control programs and insufficient numbers of operators.

Sanitary Survey Successes and Challenges

- Sanitary surveys for surface water CWSs are very complete and detailed. West Virginia refers to the eight elements required by IESWTR as "integral elements."
- DHHR also conducts annual inspections, which are about one-third as long as a full sanitary survey. The annual inspections are particularly focused on systems with previous deficiencies.
- DHHR has greatly improved the state of West Virginia PWSs over the last ten years. An average of ten deficiencies per system would be identified during a sanitary survey ten years ago, now the majority of systems have no deficiencies. DHHR attributes this improvement to increased dialogue with the systems.

- DHHR assigns violations for failure to provide a written response to sanitary survey deficiencies within 45 days.

- DHHR considers all non-community ground water systems as protected and disinfected. (All systems are required to chlorinate.) All non-community ground water systems are thus on ten-year sanitary survey schedules. However, according to the federal rule, there must be documentation of protected and disinfected status for a system to reduce to this schedule. While West Virginia's mandatory chlorination can be considered to ensure "disinfected" status, it's not clear how all ground water non-community systems were designated as "protected." (At least one system, however, had not had a sanitary survey within ten years.) DHHR indicated that they are now trying to increase the frequency to once every five years in anticipation of the GWR. Not all systems were receiving a sanitary survey at least every five years. It was also recommended in the previous review that DHHR ensure that systems receive a sanitary survey according to the required schedule and that the central office better track the frequency of sanitary surveys completed by the field offices. DHHR responded that more emphasis on tracking has been coming from Region 3 and the state has been making every effort to minimize systems that exceed time frames.

- Current noncommunity sanitary surveys appear to be much less detailed than ones in the past, possibly concurrent with the adoption of the "SWIFT" template.

- DHHR does not assign or report violations for failure to meet the sanitary survey schedule as required by the provisions of the TCR which refer to sanitary surveys (§ 141.21(d)). DHHR noted that since the PWS does not conduct the sanitary surveys, DHHR does not assign violations to the PWS for failure to meet the sanitary survey schedule. However, since responsibility for compliance with SDWA resides with the PWS, the violation should be assigned, regardless of how each primacy agency assists with PWS compliance.

- DHHR has about the same number of positions for staff conducting sanitary surveys as five years ago, but many of these positions are vacant. Many staff have retired or are on medical leave. There is also a dearth of qualified applicants for vacant positions, because of low salaries and competition with higher-paying coal-mining jobs, which frequently pay twice the salary the state can offer.

Recommendations

1. If West Virginia wishes to allow "protected and disinfected" status to noncomunity systems, this status should be conferred system by system, rather than as a blanket decision. In addition, chlorination alone is not enough to make a system eligible for this status. Some determination of vulnerability and also a statement that the source has been determined to be protected must also be made. DHHR responds that district office personnel are in the process of shortening the frequency for all noncommunity ground water systems on a five-year

frequency, in anticipation of the upcoming GWR, making a "protected" determination unnecessary.

2. Ground water systems should receive sanitary surveys at least once every five years unless granted specific protected and disinfected status. Region 3 agrees that an official determination of a "protected" source must be decided upon and officially documented, before a reduced (i.e. greater than five years) cycle can be allowed.

D. Consumer Confidence Report Rule

CCRs are delivered and filed on hard copy. DHHR sends CCR reminders to all systems. CCR dates are entered into an Excel spreadsheet for tracking, which is done by county and district. Late CCRs are identified in bold font.

Content is reviewed, but systems are only asked to make corrections for that year if there is time or if the errors are health-related.

Consumer Confidence Report Rule Successes and Challenges

- CCR content checklists were identified in the files that appeared to be very thorough.
- Because DHHR is in the Bureau of Public Health, the program is able to withdraw food or alcoholic beverage licenses if systems do not comply with CCR, which is a very effective compliance tool.
- DHHR allowed a three-day "grace period" for post office delivery delay of CCRs. Since July 1, 2007 was on Sunday, and July 4 was a holiday, July 5, 2007 was the last day the program would accept postal delivery as being "on-time" for 2006 CCRs.
- West Virginia policy is not to issue both 7000-71 and 7000-72 violation for the same CCR year. This is not a correct interpretation of the rule as a system might both send or certify late (7000-71) and also have insufficient content (7000-72).
- Three CCR discrepancies were assigned and nine violations assigned by DHHR were confirmed.
- In comments to the draft report, Region 3 noted that it agrees with these statements and recommendations. If the state is interested, the Region is willing to put on a training session on the CCR or PN Rules for DHHR staff.

Recommendations

1. DHHR should not allow systems a "grace period" for delivery of CCRs, as the federal rule has no allowances for it. DHHR explains that a three-day grace period was established for mail delay. As DHHR understands, whenever the post office receives a required document, the law considers the document received by the recipient, as the post office is considered an agent of the recipient. The grace period was established because of this interpretation. In other words, the public water system could mail the document on June 29th, but DHHR might not physically receive the document until after July 1st, in the view of the understood legal interpretation, the public water system met the legal definition of delivery. The team reminds DHHR that this does not meet the federal rule, which requires delivery to the state by July 1 and October 1, regardless of the delivery medium used.

2. DHHR should assign both 7000-71 and 7000-72 violations for the same CCR year when the situation warrants it. DHHR notes that they did not fully explain the procedures in place in WV and explain in comments to the draft report that if a major violation is assigned (7000-71), the violation will not be returned to compliance (RTC) until all elements are complied with. In other words, with this policy in place, a minor violation (7000-72) cannot occur in conjunction with a major violation (7000-71). If a minor violation is issued (inadequate or incorrect information in CCR or lack of certification by due date), it is obvious that a major violation cannot occur concurrently. The team agrees that if a 7000-71 remains outstanding, then a 7000-72 should not be assigned. If DHHR's policy includes not allowing an RTC until the certification is received, then this meets the federal rule. If, however, the system has been RTC'd following a 7000-71 and then fails to provide certification on time, a 7000-72 should also be assigned.

E. Total Coliform Rule

The state lab will fax the central office if a total coliform positive is detected. The central office notifies the district office, who contacts the system. The commercial labs are supposed to follow this system, but sometimes take two to three days to fax the central office. DHHR can address this by asking the lab certification officers to talk to the lab supervisor. Lab certification can be withdrawn if the lab does not comply. A log is kept of all total coliform positive samples.

DHHR district office personnel will invalidate a total coliform positive sample if the system requests it and the request meets one of the criteria for invalidation: 1) if the positive occurred at one site only and not again; 2) if sample bottles were contaminated; 3) if the sampling site is not representative of the system. The decision must be confirmed by the central office. Invalidations were observed in the files, with good documentation.

Total Coliform Rule Successes and Challenges

- In the previous review, not all systems serving more than 4,900 persons were taking all TCR samples on different days during the month. DHHR reports that all district offices have been advised of this requirement. No discrepancies of this nature were observed during this review and only one TCR discrepancy was identified overall.

- Good communication was noted between wholesalers and purchasing systems regarding Boil Water Notices.

- Total coliform positives are usually investigated by district office engineers, particularly if there are recurring problems.

- DHHR does not allow systems to reduce to annual TCR monitoring, because the program feels that monitoring schedule is not protective enough.

- DHHR allows systems 14 days to take repeat samples following notification of a total coliform positive. This is because systems do not have sampling bottles on hand and must order them. This policy does not conform with federal regulations which require repeat sampling within 24 hours.

  In comments to the draft report, DHHR explains further: *The 14 days is the time from the initial coliform collection date and the repeat sample collection date. The "best case scenario" is a sample is collected on day one, received by the laboratory on day two, the results of the total coliform test are found on day three, a fecal coliform test is run on day 4, the results are faxed to the central office on day 5, and the district office and the public water system are notified on the same day. The system collects the repeat samples on day 6. A worst case (and more typical) scenario would be that the sample is collected on day 1, the sample is mailed on day 2, the sample begins analysis on day 3, the confirmation test is done on day 4, the results are obtained on day 5, the central office is notified on day 8 (day 6 and 7 is the weekend), district office is notified on day 9, district office cannot make phone contact, and mails a letter advising the system on day 10, and the system does not receive the letter until day 12, and collects the sample on day 13. One additional day was added, in case a holiday occurs within this scenario. Please note that this scenario assumes the system has bottles on hand for collecting repeat samples. Issues occur when the spare bottles on hand are over six months old, as OLS considers these bottles "out of date," and recommends that the system not use these bottles. Most systems do not routinely get coliform-positive samples and it is typical that the system must obtain new bottles prior to repeat sampling, even if they have spare bottles on hand. Another issue in West Virginia is that the OLS does not routinely accept samples on Friday, Saturday or Sunday. A skeleton staff is on hand to complete the laboratory work for samples received on Thursday. DHHR believes that 14 days is a conservative value,*

but should be long enough to force the system to be diligent in collecting the repeat samples, but may not be liberal enough to foresee all possibilities.

- If a TCR sample is collected near the end of the month and is invalidated due to overlong holding times, the system is given time to collect a replacement sample in the following month.

- A TNCWS missed monitoring for TCR in the first quarter of 2007 because the system was closed for a period of time and reopened under new ownership on Jan 12, 2007. DHHR allows some time for compliance with new ownership, so did not assign a monitoring violation for that quarter.

- Nine violations were confirmed during the review.

Recommendations

1. DHHR should revise its policy of allowing 14 days for repeat sampling after notification of a total coliform positive. Many states require systems to keep repeat sampling bottles on hand, to avoid the time-delay introduced by acquiring bottles. Region 3 agrees with these statements and recommendations, in particular revising the state policy of allowing 14 days for repeat sampling after notification of a total colliform positive.

2. Systems on quarterly monitoring should monitor in every quarter they are open, regardless of changes in ownership.

F. Phase II/V Rule

Hard copy and electronic analytical results were reviewed. Analytical data regarding detections are typically one to two weeks old by the time the central office receives them. Usually the district office will try to call the system and follow up with a letter.

Phase II/V Rules Successes and Challenges

- As discussed previously, due to inadequate staffing levels, DHHR has not renewed many individual PWS waivers since 2004. A number of discrepancies were assigned for missing SOC monitoring in the 2005-2007 compliance period, where DHHR personnel assumed that a waiver had been renewed when it had not.

- Some M/R violations for IOCs were not found. As a result of this finding, the DHHR central office determined that noncommunity IOC violations were not being migrated to potential violations, due to a programming error. Region 3 inquired if DHHR has resolved this issue. DHHR responds in Recommendation #2 below.

- Phase II/V detections did not always elicit increased quarterly monitoring. DHHR could not find any documentation on why a system reviewed was not notified to go to quarterly monitoring in a timely fashion. DHHR takes the position that the program notifies the systems to increase monitoring prior to any violations being issued. This issue was also noted in the previous review.

- DHHR tries to get confirmation samples for all detections and MCL exceedances. The average of the two samples determines whether monitoring is increased. While a confirmation sample can be used to determine an MCL exceedance, a detection should be followed by two quarters of monitoring for a ground water system and four quarters for a surface water system, regardless of the results of a confirmation sample. The results of quarterly monitoring establish whether or not the system is reliably and consistently (R&C) below the MCL.

- A data entry error led to a mistake in nitrate compliance determination. A date had been entered into SSWR1, but no value. Investigation showed that there was no sample for that year. The erroneous date entry, however, prevented an M/R violation from being assigned.

- DHHR follows an unwritten rule that allows new systems three months of transition before beginning SDWA monitoring. Engineers in district offices are assigned the new systems to ensure correct progress.

- Fourteen violations were confirmed in this review and nine discrepancies were identified.

Recommendations

1. DHHR should ensure that a system with a Phase II/V detection should monitor for two additional consecutive quarters, if a ground water source, and four additional quarters, if a surface water source, to determine whether the system is R&C below the MCL. Confirmation samples should not be used to replace quarterly monitoring.

2. DHHR should pursue the IOC violation migration error and correct it. DHHR responds that, some time ago, it was discovered that there was a difference in the contaminants between what is required to be collected by CWSs and NTNCWSs for IOCs. A new "group" was assigned for the NTNCWS systems. The compliance officer must specify the contaminant "group" of potential violations to migrate. Based on the comments found for Zela Elementary School, it appears that the compliance officer forgot that there are two "groups" of IOCs, one for CWSs and one for NTNCWSs. This was human error, and a work process is being developed to try and prevent this error from occurring in the future.

3. DHHR should address the delays in delivery of analytical data. Federal regulations require that water systems report the results to the state within (1) the first 10 days following the

month in which the result is received, or (2) the first 10 days following the end of the required monitoring period as stipulated by the state, whichever of these is shortest.

G. Stage 1 and Stage 2 Disinfectant and Disinfection By-Products Rule

Mostly hard copy analytical DBPR results were reviewed, though DHHR enters most Stage 1 data into SSWR1. Running annual averages (RAAs) for all aspects of Stage 1 DBPR are calculated manually if at all (see "Successes and Challenges" below). Compliance officers calculate THHM and HAA5 running annual averages on an Excel spreadsheet instead of in SSWR1 because SSWR1 doesn't adjust for missed samples.

In comments to the draft report DHHR clarified their process: *SDWIS/State calculates the RAAs for TTHMs, HAA5s and chlorine residuals. The only known problem in the computations done by SDWIS/State is that if a system does not monitor all the samples as required, SDWIS/State computes an incorrect RAA. When the system is near the MCL, the compliance officer tracks the RAA on a separate spreadsheet, just in case a required sample is skipped, and a possible MCL might be missed. The RAA in SDWIS/State can be overwritten with the correct RAA if a sample is skipped, and will compute future MCL's correctly. A component of SDWIS/State, Compliance Decision Support (CDS), is run two or three times per week. One of the outputs of the report generated is that all potential MCL/MRDL violations are identified since the last run. This tool was developed to get a "jump" as early as possible on potential violations.*

DHHR asks systems on annual or triennial HAA5 and TTHM monitoring to sample in the warmest month of August. This month was chosen by reviewing water temperature data from systems across the state. Schools are allowed to sample when they open in September, as long as it's as close to the end of August as possible. Disinfection profiling and benchmarking is done only if systems change disinfection practices.

Stage 1 and Stage 2 Disinfectant and Disinfection By-Products Rules Successes and Challenges

- West Virginia has not yet been conducting compliance determination for Stage 1 DBPR. The state planned to start issuing violations for non-submittal in the second quarter of 2008. Even though general monitoring will be evaluated at that time, the compliance officers will not evaluate calculations because DHHR has determined that the SSWR1 calculator is not working correctly and resources are too limited to do manual calculations. It should be noted that DHHR can require systems to complete all calculations and report them to the state, as described in the rule. In the previous review, one system was identified that had a running annual average distribution system chlorine maximum residual disinfectant level (MRDL) of 4.2 mg/L and no violation was assigned. DHHR confirmed that violations are not assigned in these cases either, since they are not issuing MRDL violations due to limited resources.

Region 3 asked that this be clarified, contending that: *There is nothing in the report to indicate that DHHR is not enforcing the monitoring and MCL requirements for TTHMs and HAA5s, and in fact, actually describes the process by which the compliance determinations are being made for these byproducts. Also, a quick review of the discrepancies shows that the vast majority of them are related to the chlorine residual provisions.* While it is true that TTHM and HAA5 compliance determination is done and violations assigned, including MCL violations, as it was under the previous TTHM rule, it is DHHR's stated position that, at the time of the review and until the second quarter of 2008, they were not yet assigning violations for the other aspects of Stage 1 DBPR, which includes chlorine residual and Total organic compounds (TOC) monitoring, reporting and MCLs.

- In the previous review, it was found that DHHR had been receiving all raw data for Stage 1 DBPR and those data were entered into SSWR1. In September 2004, the distribution system chlorine residual results taken at the same time and place as TCR samples were overwritten with another set of data from the state requirement that all systems take a single chlorine residual sample daily in the distribution system. Because the DBPR compliance data were overwritten with the state-required data, DHHR was unable to use SSWR1 to determine compliance during the previous review's period of review. DHHR reports that steps were taken to prevent a similar accident. However, upon review, it was not clear in SSWR1 that the daily chlorine residuals were differentiated from the ones required for Stage 1. Since compliance calculations and determinations for Stage 1 DBPR are not being done, it's difficult to determine whether DHHR is truly able to distinguish these results.

- TOC monitoring is not being conducted for at least one system that West Virginia considers to be exempt. The system reviewed has a conventional treatment system. After that, the water goes through a green sand filter, then reverse osmosis treatment. When the additional treatment was added, it was believed that the need to meet the compliance criteria (e.g., precursor removal or turbidity) for the conventional treatment system was no longer required. West Virginia is taking the position that TOC monitoring is not needed on this system. EPA's position is that, while there are many ways to demonstrate compliance with the Stage 1 Precursor Removal requirement (e.g., 3x3 matrix, alternative compliance criteria, Step 2 demonstration), there are no provisions that allow a conventional system to be exempt from precursor removal compliance monitoring. If the system is using an alternative treatment technology there are no precursor removal requirements. If, however, the system is using an alternative technology in addition to conventional treatment and the conventional treatment is not bypassed, the precursor removal requirements are in effect (i.e., there must be precursor monitoring to demonstrate compliance). If conventional treatment has been bypassed, with the new treatment providing adequate control, the system would no longer be required to monitor for precursors. In the previous review, TOC compliance calculations were not always well documented, including documentation if the system was using alternate criteria for a given month. This scenario appears to be symptomatic of that same issue.

- West Virginia systems are not always collecting TTHM and HAA5 samples on the same day. DHHR has taken the position that systems may collect on different days within the designated period and be in compliance. However, the text at §141.132(b)(1) and the title of the table indicate that sampling is for both TTHM and HAA5, therefore EPA intends that the word "sample" include both and that this sampling should be done concurrently.

  In comments to the draft report, DHHR reiterated that they have taken the position that the regulations do not explicitly require that samples be collected on the same day, and so does not see this as a compliance issue as long as the samples are collected within the required monitoring period. Region 3 states that: *Although we agree that the intent of the Stage 1 Rule is that the samples be collected on the same day, we do not believe that DHHR should be required to assess a violation based on intent. If this situation were to have occurred under the Stage 2 Rule, which explicitly requires that a dual sample set be collected at each sample point, we would agree that a violation must be assessed. However, since the requirement is not explicit under the Stage 1 Rule, we do not agree that this type of discrepancy should stand.*

  EPA Headquarters, however, has directed that primacy agencies be held to the intent of the Stage 1 DBPR rule.

- Seven violations for Stage 1 DBPR were confirmed (all for TTHM and HAA5 monitoring) in this review and 56 discrepancies were identified.

- As an overall comment on the Stage 1 DBPR discrepancies, Region 3 notes: *The majority of these discrepancies involve failure to determine compliance for the chlorine residual monitoring and MRDL provisions of the Stage 1 DBPR. Region 3 will follow up with DHHR in an attempt to address resource issues and to assist them in identifying less resource intensive mechanisms with which to track chlorine residual monitoring and in calculating MRDL compliance. Other discrepancies involve late reporting (by several days to a week), and not issuing a violation for samples collected on different days (addressed above).*

Recommendations

1. DHHR should perform compliance determination for all aspects of Stage 1 DBPR. DHHR responds that the program is considering moving the determination of those elements of the Stage 1 rule that are not currently being implemented to the district offices, until personnel positions can be filled and those persons adequately trained, to address these issues.

2. As in the example of the system with conventional treatment that is either incorporated or bypassed, DHHR should determine which scenario is occurring at the plant, designate the treatment used and the compliance requirements.

3. Distribution system chlorine residual samples should be taken at the same time and place as all compliance TCR samples, including repeat samples or "extra" routine samples.

4. Stage 1 DBPR monthly and running annual averages should be calculated and reported to West Virginia as required by the regulation. If DHHR chooses, they may perform and record these calculations for the systems.

H. Radionuclides Rule

Most West Virginia systems were able to use grandfathered data to determine monitoring schedules for the revised radionuclides rule. Systems began monitoring for the revised rule in 2005, 2006 and 2007. None used compositing of samples. Compliance officers use Excel spreadsheets to calculate running annual averages for radionuclides.

No systems have been deemed vulnerable to Gross Beta.

Radionuclides Rule Successes and Challenges

- About 10 West Virginia systems have not yet monitored under the revised rule, but these ten are systems that typically monitor for no rules and thus are SNCs regardless.

- One system did not meet the grandfathering criteria for both sources and did not complete monitoring for the revised rule in 2007. No monitoring schedule had been entered into SSWR1 due to an apparent oversight on the part of DHHR, so monitoring violations were not assigned. Four discrepancies were assigned for this. No violations were confirmed.

Recommendations

1. DHHR should ensure that systems either have appropriate grandfathering data for all sources or monitor for radionuclides at all sources according to the revised rule.

I. Lead and Copper Rule

DHHR has adopted the LCRMR, and is using that method to determine compliance with optimal water quality parameters (OWQP) and is reporting "deemed" and "done" milestones. They have also submitted the STR LCR provisions for the 2009 legislative session.

SSWR1 is used to calculate some 90th percentile values for lead and copper tap sampling, while 90th percentiles for older samples were calculated manually. DHHR compliance officers used to do these calculations but no longer do so. DHHR almost never encounters action-level exceedances (ALEs). Only one West Virginia system is in the process of installing corrosion control at this time. Many systems replaced their distribution systems with plastic lines to avoid corrosion control efforts.

Lead and Copper Rule Successes and Challenges

- It was recommended in the previous review that DHHR ensure systems take annual and triennial LCR samples during the summer months of June through September or, under the provisions of the LCRMR, establish an alternative monitoring period and adhere to it. DHHR corrected this monitoring and all systems reviewed were successfully monitoring in June through September.

- DHHR has allowed systems to collect LCR samples in any year within a triennial period. For example, one sample set was required between 2002 and 2004 and one sample set between 2005 and 2007. Because of the upcoming STR LCR, DHHR will be transitioning to enforce samples no more than three years apart, beginning in 2010. The triennial sampling requirement, however, was part of the original LCR and LCRMR; the sampling schedule was only clarified by STR LCR.

- Because DHHR uses a "compliance period" for LCR monitoring, rather than the triennial monitoring required by the rule, some M/Rs were assigned with incorrect dates. In the previous review, DHHR was advised that the violation begin date for LCR violations is the first day after the end of the compliance period. When asked if this had been corrected, DHHR responded that violation periods are automatically created by SSWR1. Because the dates in SSWR1 have been set to the "compliance period" rather than triennial monitoring, the dates have continued to be incorrect.

- DHHR has been assigning multiple routine M/R violations for LCR (5000-52) where only one violation should be assigned and left outstanding until subsequent sampling returns the system to compliance. During evaluation of ODS error reports, DHHR found that the program has routinely been handling 5000-51 (initial monitoring) and 5000-52 violations incorrectly, probably from the beginning of implementation of the rule. To correct this, DHHR has issued subsequent violations and returned all violations to compliance upon two consecutive monitoring periods. This error was discovered in April 2008, and corrections have not been made as yet to the database. It will take some time to correct. DHHR adds that compliance officers have been advised of the proper procedure and future multiple violations should be avoided. Identifying old multiple violations and deleting them from SDWIS/State will be addressed over time.

- Not all 90th percentile lead values and ALE values are being reported to SDWIS/Fed. DHHR believes that Fed/Rep is supposed to extract the information automatically from systems with populations over 3,300. In one case, the results were recorded as a summary with a 90th percentile equal to 0.00 (instead of less than the detection limit). Incorrect data entry may be the culprit.

Regarding the implication that West Virginia has a problem with entering the lead sample data, Region 3 comments on the draft report that this was true in a 2007 report on data completeness from EPA Headquarters which indicated that only 35.5 percent of PWSs greater than 3,300 in West Virginia had lead sample data in SDWIS/Fed for the 2005-2007 period. EPA Headquarter's 2008 report on data completeness for West Virginia for the same period indicates a great improvement to 100 percent complete. Region 3 would like to note that there had been a problem with the lead sample data in West Virginia and that the state has made significant corrections

- In one case a change in population was not caught by the compliance officer and the lead and copper 90th percentiles were calculated on 10 samples instead of 20. DHHR noted that enhancements to SSWR1 should notify the program when populations change, and the potential rules that may be impacted by the change.

- A system using a new source was placed on a triennial sampling schedule, but this schedule is based on results from a source no longer in use. The system should be scheduled to collect two consecutive six-month samples for compliance.

- Twenty-one LCR violations or instances of sample reporting were confirmed and 18 discrepancies identified, all related to the issues discussed above.

Recommendations

1. DHHR should discontinue the use of three-year "compliance periods" for systems on triennial monitoring. Instead, DHHR should adjust their monitoring schedules to reflect the federally-required six-month, annual or triennial cycles. These dates should be adjusted in SSWR1 to ensure that the correct violation dates are generated in the case of any M/R violations. DHHR responds that, in anticipation of the STR LCR, DHHR assigned a specific year for systems to monitor for lead and copper. Future versions of SDWIS/State will allow tracking of monitoring in specific years. DHHR notes that this recommendation was already being addressed during the on-site program review.

2. Region 3 and DHHR should investigate why not all lead sample and ALE values are reported to SDWIS/Fed. Conversely, the state should eliminate multiple monitoring violations, as only one open violation should be assigned until the system returns to compliance.

3. West Virginia systems should be reviewed to ensure that they are taking the correct number of samples given population changes that may have occurred since schedules were initially set.

J. Surface Water Treatment Rule, Interim and Long Term 1 and 2 Enhanced Surface Water Treatment Rules, and Filter Backwash Recycling Rule

Systems complete and submit MORs, which are completed on Excel worksheets and then hard copies are faxed or mailed to the central office, where they are scanned for the district engineers and most of the data are entered into SSWR1. Compliance is tracked through SSWR1.

West Virginia does not allow unfiltered surface water systems. GWUDI determinations are ongoing. In a January 2008 report to Region 3, DHHR noted that all GWUDI determinations were complete for systems that existed prior to January 1, 2004. Testing of new wells and sources was ongoing for 3 CWSs, 6 NTNCWS and 19 TNCWSs new since January 1, 2004. A GWUDI determination is now part of the start-up process for a new system.

Filter backwash recycling notifications were required of 31 West Virginia systems, though not all recycled. Several systems decided to stop recycling in order to avoid the rule requirements. No capital improvements were required of the remaining systems. District offices are responsible for reviewing FBRR information on site.

Surface Water Treatment Related Successes and Challenges

- GWUDI systems are required by DHHR to monitor in all ways like surface water systems, which is more stringent than federally required.
- Some systems did not submit FBRR notifications in time, but no violations were assigned as DHHR determined that this was only a reporting requirement and not important enough to warrant violations.
- DHHR is not performing compliance determination or assigning violations for LT1 ESWTR due to limited resources. DHHR clarifies that they are not currently issuing turbidity exceedence violations. DHHR is considering moving the determination of those elements of the rules that are not currently being implemented to the district offices, until personnel positions can be filled and those persons adequately trained, to address these issues.
- Discrepancies were assigned for four systems that failed to complete reporting requirements under LT1 ESWTR. The systems were required to conduct continuous monitoring, but only reported, for example, turbidity values three times per day or did not report the number of entry point chlorine residual samples. In two cases, the forms said only "Continuous Monitoring," with no samples recorded. This does not meet the LT1 ESWTR requirements for systems with continuous monitoring to record measurements every 15 minutes and then report the number of measurements taken. DHHR cites a checklist that is part of the MOR that indicates whether the system is performing continuous monitoring, but for a system to simply state that continuous monitoring is occurring does not meet the reporting requirements. DHHR

also referenced SWTR in explanation of this reporting system, which does not apply in these cases. In addition, it was recommended in the previous review that DHHR ensure that all SWTR sampling failures receive M/R violations. DHHR states that SWTR violations have not been assigned or reported due to limited resources and that this includes turbidity violations for non-submittal, exceedances, insufficient samples, etc. DHHR attributes this to the SSWR1 calculator not working correctly to help out.

DHHR responds: *DHHR disagrees with the requirements as outlined. It is clear in the regulations that continuous chlorine residual monitoring is not required to be reported, only the minimum residual measured each day. The instructions on the Monthly Operational Report instruct the operator to write across form EW 90-B that they are performing continuous monitoring and record the minimum residual on form EW-90. The exact requirements can be found at 40 CFR §141.75 (b)(2)(i): "for each day, the lowest measurement of residual disinfectant concentration in mg/l in water entering the distribution system." This requirement has not changed with subsequent rules (IESWTR or LT1ESWTR). It is also clear that continuous monitoring is not required to be reported for turbidity. The SWTR states that turbidity measurements (see 40 CFR 141.74 (c)(1)) "...are to be performed on representative samples of the system's filtered water every four hours... ". DHHR takes the position that if water is not actively being filtered, the sample is not representative. DHHR requires samples to be collected only during the time the water is being filtered. Specific reporting requirements are found in 40 CFR §141.75 (b)(1) (i) thru (iii): The total number of filtered water turbidity measurements taken during the month, the number and percentage of filtered water turbidity measurements taken during the month which are less than or equal to the turbidity limits specified, and the date and value of any turbidity measurements taken during the month that exceed 5 NTU. Our form EW-90A has been developed to incorporate the reporting requirements listed, in addition to the actual readings measured, more than what is required by the rule. The IESWTR and LT1ESWTR did not change the reporting requirements for the combined filter effluent (it changed the turbidity treatment technique standards only), but did create new reporting requirements for individual filter monitoring. The IESWTR reporting requirements are found in 40 CFR §141.175 and for LT1ESWTR in 40 CFR § 141.570. The only time the actual continuous monitoring results are required to be reported only under the IESWTR if one of the conditions listed in 40 CFR § 141.175 (b) (1) thru (4) are met. There appears to be no parallel requirement under the LT1ESWTR. DHHR understands the combination of rules to have two reporting standards: one for the combined filter effluent, which is a minimum of one sample every four hours, where the combined filter effluent standards of 1 NTU and 0.3 NTU are applied for conventional and direct filtration (the vast majority of our subpart H systems). DHHR interpretation is that the later rules did NOT change the monitoring frequency for combined filter effluent. The checklist developed on EW-90A page 2 follows the regulations cited above, when it was developed.*

3NTU

Region 3 agrees that Cadmus has provided valid comments that DHHR needs to address, although Region 3 needs to have further discussion regarding the issue of recording turbidity levels when continuous monitoring is being performed.

- No violations were confirmed and 48 discrepancies were identified, all related to the above issues.

Recommendations

1. DHHR should perform compliance determination for all aspects of SWTR, IESWTR and LT1 ESWTR.

2. Systems using continuous monitoring should be required to report according to federal regulations.

K. Public Notification

The team only reviewed Tier 1 and Tier 2 public notification violations. PN request and receipt dates are entered into SSWR1 and tracked there.

Public Notification Successes and Challenges

- Review of past PN was noted in the files. In particular, for Charles Town Water Department (WV3301905), it appeared the file had been reviewed in 2008. The system was asked to do PN for M/R violations ranging across all rules as far back as 2001. The system did so.

- DHHR assigns violations for failure to perform PN, though none were observed.

Recommendations

1. None.

Appendix A
Status of Previous Recommendations

Questions on West Virginia's Corrective Actions since the July 2005 Review

The final report for the West Virginia Department of Health and Human Resources, Bureau for Public Health, Office of Environmental Health Services, Environmental Engineering Division (DHHR) July 2005 review identified major and minor implementation concerns. Questions follow on how the recommendations of the report and from Region 3 were implemented.

Description of Issue and Recommendation	Questions	State Response
General		
Recommendations from last review	What steps have the region and state taken since the last Review to address recommendations found in the report?	7/1/08 DLW/HMC-No help was received from the Region.
Recommendations from last review	Are findings from the review included in discussions between the state and region, for instance when the PWSS Grant or annual work plan are negotiated?	CHR-Yes
The previous review found that if analytical results are received more than 10 days after the end of a compliance period, DHHR deletes the violation and a return to compliance code (SOX) is entered into SSWR1. The review team noted that this practice of deleting "reporting" violations was not acceptable.	Are reporting violations now retained in the database?	CHR-Yes

Description of Issue and Recommendation	Questions	State Response
The team noted that there were many violations from 2002 through 2004 that had not yet been reported to SDWIS/Fed during the July 2005 review. Reporting was sometimes complicated by a lack of resources for the compliance staff and a lag time in the validation of violations.	Have all compliance determinations been completed for data through 2007 and any violations or required sample results reported to SDWIS/Fed?	CHR-Yes
Inventory		
Some inventory discrepancies (for population, service connections, system type, system status, and source) were identified and it was recommended that DHHR encourage the district offices to continue to update inventory information in SSWR1 for upload to SDWIS/Fed.	Is inventory information now consistent between West Virginia's inventory, SSWR1 and SDWIS/Fed?	CHR-We are using Fed Rep and ODS reports to address discrepancies.
Sanitary Surveys		
Not all systems were receiving a sanitary survey at least every five years. It was recommended that DHHR ensure that systems receive a sanitary survey according to the required schedule and that the central office better track the frequency of sanitary surveys completed by the district offices.	Do all systems receive a sanitary survey at least every five years, or every three years, if subject to IESWTR? Were any tracking measures enacted or improved to ensure this schedule?	CHR-More emphasis on tracking has been coming from the Regional EPA Office, and we have been making every effort to minimize systems that exceed time frames.

Description of Issue and Recommendation	Questions	State Response
Total Coliform Rule (TCR)		
Not all systems serving more than 4,900 persons were taking all TCR samples throughout the month.	Do systems serving more than 4,900 persons now take TCR samples on more than one day during the month?	CHR-All district offices have been advised of this requirement.
Lead and Copper Rule (LCR)		
It was recommended that DHHR ensure systems take annual and triennial LCR samples during the summer months of June through September or, under the provisions of the LCRMR, establish an alternative monitoring period and adhere to it.	Are systems either sampling in June through September, or has an alternate monitoring period been established?	CHR-Yes
DHHR was advised that the violation begin date for LCR violations is the first day after the end of the compliance period.	Does DHHR now use the correct violation dates for LCR?	CHR-Violation periods are automatically created by SSWR1.
Phase II/V		
Some systems with detections of Phase II/V contaminants did not sample quarterly to establish if they were R&C below the MCL.	Do systems now complete the appropriate R&C determinations?	7/1/08 DLW/HMC-As of 2005, regulatory & compliance procedures have been followed. However, no look-back prior to 2005.
SWTR, IESWTR, LT1 &2 ESWTR		
It was recommended that DHHR ensure that all SWTR sampling failures receive M/R violations	Are these violations now assigned and reported?	7/1/08 DLW/HMC-SWTR violations have not been assigned/reported due to limited resources. This includes turbidity violations for non-submittal, exceedances, insufficient samples, etc. SDWIS-calculator is not working correctly to help out.

Description of Issue and Recommendation	Questions	State Response
Stage 1 & Stage 2 DBPR		
In 2005 DHHR received all raw data for Stage 1 DBPR and data were entered into SSWR1. Unfortunately, in September 2004, the distribution system chlorine residual results were overwritten with another set of data from a state requirement. DHHR required that all systems take a single chlorine residual sample daily in the distribution system, in addition to the DBPR requirement to sample disinfection residual at the same time and in the same place as TCR. Because the DBPR compliance data were overwritten with the state-required data, DHHR was unable to use SSWR1 to determine compliance during the previous review's period of review.	Were steps taken to prevent a similar accident? Are all compliance calculations current and available for review?	CHR-Yes
TOC compliance calculations were not always well documented, including documentation if the system was using alternate criteria for a given month.	Are these calculations and alternative criteria now well documented?	7/1/08 DLW/HMC-HMC required PWS to submit all 2007 data in 4Q07. HMC educated PWS on TOC reporting. Starting in 2Q08, violations will be issued for non-submittal. Compliance Officer will not evaluate calculations because SDWIS calculator is not working correctly and resources are too limited to do manual calculations.

Description of Issue and Recommendation	Questions	State Response
It was recommended that DHHR ensure that systems monitor for TOC and TTHM/HAA5 when required and that violations are reported to SDWIS/Fed for systems that fail to do so.	Is TOC, TTHM and HAA5 monitoring now completed according to schedule? Are violations assigned and reported if not?	7/1/08 DLW/HMC-All DBP violations are being issued, TOC non-reporting violations will be issued starting in 2Q08. TOC TT violations will not presently be issued until resource limitation has been alleviated and/or SDWIS calculator is fixed.
DHHR was reminded that if a system fails to sample for distribution system disinfection residual, regardless of whether or not they sampled for TCR, a violation should be assigned.	Are these violations now assigned and reported?	7/1/08 DLW/HMC-No, see reasons above.
One system was identified in 2005 that had a running annual average distribution system chlorine maximum residual disinfectant level (MRDL) of 4.2 mg/L and no violation was assigned.	If MRDLs are exceeded, do systems receive violations and complete required increased monitoring?	7/1/08 DLW/HMC-No, we are not issuing MRDL violations due to limited resources.
PN		
It was recommended that DHHR staff ensure that PN is received and violations assigned if not.	Do all systems that fail to provide PN in the correct timeframe receive the appropriate violations?	CHR-Yes

Appendix B
Summary of Discrepancies Identified by Rule

Rule	Data Flow (DF)		Compliance Determination (CD)	
	M/R	MCL/TT	M/R	MCL/TT
Inventory	-	-	-	-
Sanitary Surveys	-	-	NTNCWSs: 1 TNCWSs: 13	-
Consumer Confidence Reports	-	-	CWSs: 3	-
Total Coliform Rule	-	-	TNCWSs: 1	-
Nitrate/Nitrite	-	-	TNCWSs: 1	-
Inorganics (IOCs)	-	-	CWSs: 1 NTNCWSs: 1	-
Volatile Organics (VOCs)	-	-	CWSs: 2	-
Synthetic Organics (SOCs)	-	-	CWSs: 3 NTNCWSs: 1	-
Stage 1 and Stage 2 DBPR	-	-	CWSs: 26 NTNCWSs: 30	-
Surface Water Treatment Rules (SWTR, IESWTR, LT1 ESWTR)	-	-	CWSs: 48	-
Filter Backwash Recycling Rule	-	-		-
Radionuclide Contaminants	-	-	CWSs: 4	-
Lead and Copper (LCR)	CWSs: 2	-	CWSs: 9 NTNCWSs: 7	-
Public Notification	-	-	-	-

Appendix C

Summary of Discrepancies Identified by System

PWSID	PWS Name	System Type	Rule	Violation or Compliance Begin Date(s)	Question	Supporting Details	State Response	Discrepancy Resolution
WV3301905	CHARLES TOWN WATER DEPT	CWS	CCR	10/1/07	CCR not certified by 10/1 as required. Why wasn't a violation assigned?	Certified 11/26/07.	A 7000-71 violation was assigned, and SOX'd effective the date the certification was received WV policy is not to issue both 71 and 72 violation for the same CCR year.	Discrepancy stands.
WV3300201	G & E MHP	CWS	CCR	7/1/07	CCR not delivered by 7/1 as required. Why wasn't a violation assigned?	Copy of CCR received by state on 7/5/07.	Three day "grace period" is allowed for post office delievery delay. Since July 1 was on Sunday, July 4 was a holiday, therefore, July 5 was the last day we would accept postal delivery as being "on-time."	Discrepancy stands. Grace period not allowed by federal regulation.
WV3303604	NAVY INFORMATION OPERATIONS COMAND/MB	CWS	CCR	10/1/07	CCR not certified by 10/1 as required. Why wasn't a violation assigned?	CCR certification received 10/7/07.	It is WV policy not to issue both a 71 and 72 violation for the same CCR period. A 7000-71 violation was issued, and should be SOX'd 10/7/07.	Discrepancy stands.
WV3303317	TRI LAKE HOLDINGS, INC.	CWS	CCR	7/1/07	Violation was assigned, but was not reported to SDWIS/Fed - why not?		SSWR1, found only one 7000-71 violation for PWS, which was for 2005 (7/1/2006). See attached screen shot.	Discrepancy changed from data flow to compliance determination - CCR was not delivered until 7/7/07 and no violation was assigned.

PWSID	PWS Name	System Type	Rule	Violation or Compliance Begin Date(s)	Question	Supporting Details	State Response	Discrepancy Resolution
WV3304301	CAIRO WATER DEPARTMENT	CWS	DBPR	10/1/07	System failed to sample during compliance period. Why wasn't a violation assigned?	No chlorine residual sample collected in December 2007.	Required PWS to submit all 2007 data in 4Q07. Starting in 2Q08, violations will be issued for non-submittal. Compliance Officer will not evaluate calculations because SDWIS calculator is not working correctly and resources are too limited to do manual calculations.	Discrepancy stands.
WV3301905	CHARLES TOWN WATER DEPT	CWS	DBPR	1/1/07, 4/1/07	More TCR samples were recorded than chlorine residual samples. Expect distribution system chlorine residuals to be taken at the same time and place as TCR samples. Why no M/R violation?	In January, 11 TCR and 10 MRDLS collected. In May, 15 TCR and 14 MRDLs collected.	As in WV3304301.	Discrepancy stands.
WV3301905	CHARLES TOWN WATER DEPT	CWS	DBPR	10/1/07	Sampling results were received late. Why wasn't a violation assigned?	4th quarter results received 1/16/08.	No response provided.	Discrepancy stands.

PWSID	PWS Name	System Type	Rule	Violation or Compliance Begin Date(s)	Question	Supporting Details	State Response	Discrepancy Resolution
WV3301905	CHARLES TOWN WATER DEPT	CWS	DBPR	10/1/07	Sampling results were received late. Why wasn't a violation assigned?	4th quarter results received 1/16/08.	No response provided.	Discrepancy stands.
WV3301905	CHARLES TOWN WATER DEPT	CWS	DBPR	9/1/07	System failed to sample during compliance period. Why wasn't a violation assigned?	No TOC data provided for September 2007.	No response provided.	Discrepancy stands. State policy not to assign DBPR M/R violations at this time.
WV3301705	CLARKSBURG WATER BOARD	CWS	DBPR	1/1/07, 4/1/07, 10/1/07	More chlorine residual samples were recorded than TCR samples. Expect distribution system chlorine residuals to be taken at the same time and place as TCR samples. Why no M/R violation?	March = 20 TCR vs 24 MRDL, April = 20 vs 19, Dec = 20 vs 19.	As in WV3304301.	Discrepancy stands. See report text for EPA policy on this issue.

PWSID	PWS Name	System Type	Rule	Violation or Compliance Begin Date(s)	Question	Supporting Details	State Response	Discrepancy Resolution
WV3300201	G & E MHP	CWS	DBPR	1/1/07, 10/1/07	System failed to sample during compliance period. Why wasn't a violation assigned?	No chlorine residual samples found for March and December 2007.	As in WV3304301.	Discrepancy stands.
WV3300201	G & E MHP	CWS	DBPR	7/1/07	More TCR samples were recorded than chlorine residual samples. Expect distribution system chlorine residuals to be taken at the same time and place as TCR samples. Why no M/R violation?	System collected one routine and four repeat TCR samples, expect to see five chlorine residual samples for July, only one listed in SSWR1.	As in WV3304301.	Discrepancy stands.

PWSID	PWS Name	System Type	Rule	Violation or Compliance Begin Date(s)	Question	Supporting Details	State Response	Discrepancy Resolution
WV3303204	GAP MILLS PSD	CWS	DBPR	4/1/07	More TCR samples were recorded than chlorine residual samples. Expect distribution system chlorine residuals to be taken at the same time and place as TCR samples. Why no M/R violation?	System collected two TCR samples in April 2007, expect to see two chlorine residual samples.	As in WV3304301.	Discrepancy stands.
WV3303204	GAP MILLS PSD	CWS	DBPR	1/1/07	System collected TTHM sample on 8/3/07, and HAA5 sample on 8/28/07. Expect to see samples collected on the same day. Why no violation assigned?		The regulations appear to be ambiguous on whether the samples must be collected on the same day. WV has taken the position that systems may collect on different days within the designated period and be in compliance.	Discrepancy stands. See report text for EPA policy.

PWSID	PWS Name	System Type	Rule	Violation or Compliance Begin Date(s)	Question	Supporting Details	State Response	Discrepancy Resolution
WV3304204	HARMAN TOWN OF	CWS	DBPR	7/1/07	More chlorine residual samples were recorded than TCR samples. Expect distribution system chlorine residuals to be taken at the same time and place as TCR samples. Why no M/R violation?	Both TCR samples taken in July are marked "S" and not for compliance. SDWIS says one compliance sample taken.	As in WV3304301.	Discrepancy stands.
WV3301520	MOUNTAINEER PARK INC	CWS	DBPR	1/1/07	More TCR samples were recorded than chlorine residual samples. Expect distribution system chlorine residuals to be taken at the same time and place as TCR samples. Why no M/R violation?	Took three TCR and two MRDL samples in January 07.	As in WV3304301.	Discrepancy stands.

PWSID	PWS Name	System Type	Rule	Violation or Compliance Begin Date(s)	Question	Supporting Details	State Response	Discrepancy Resolution
WV3301204	PETERSBURG TOWN OF	CWS	DBPR	4/1/07	More TCR samples were recorded than chlorine residual samples. Expect distribution system chlorine residuals to be taken at the same time and place as TCR samples. Why no M/R violation?	Collected five TCR and three MRDL in April 2007. Collected four TCR and three MRDL in May 2007. Calculated RAA on three MRDLs in each month.	As in WV3304301.	DHHR is not assigning MRDL violations at this time due to limited resources. Discrepancy stands.

PWSID	PWS Name	System Type	Rule	Violation or Compliance Begin Date(s)	Question	Supporting Details	State Response	Discrepancy Resolution
WV3303317	TRI LAKE HOLDINGS, INC.	CWS	DBPR	4/1/07, 7/1/07	More TCR samples were recorded than chlorine residual samples. Expect distribution system chlorine residuals to be taken at the same time and place as TCR samples. Why no M/R violation?	In June, one routine and four repeat TCR samples were collected but only one MRDL. In July, five routine TCR samples were collected but only one MRDL.	As in WV3304301.	Discrepancy stands.
WV3303317	TRI LAKE HOLDINGS, INC.	CWS	DBPR	1/1/07	More chlorine residual samples were recorded than TCR samples. Expect distribution system chlorine residuals to be taken at the same time and place as TCR samples. Why no M/R violation?	No TCR samples were found but one MRDL was reported.	As in WV3304301.	Discrepancy stands.

PWSID	PWS Name	System Type	Rule	Violation or Compliance Begin Date(s)	Question	Supporting Details	State Response	Discrepancy Resolution
WV3303513	VALLEY GROVE WATER DEPT	CWS	DBPR	7/1/07, 10/1/07	More TCR samples were recorded than chlorine residual samples. Expect distribution system chlorine residuals to be taken at the same time and place as TCR samples. Why no M/R violation?	No MRDL samples were taken in July and November 2007.	As in WV3304301.	Discrepancy stands.
WV3301314	WHITE SULPHUR SPRINGS WATER	CWS	DBPR	4/1/07, 7/1/07, 10/1/07	Number of MRDL samples not reported, as required. Why weren't violations assigned?	Missing MRDL values and number of samples taken for Apr-Dec, 2007. It is not in the database.	As in WV3304301.	DHHR is not assigning MRDL violations at this time due to limited resources. Discrepancy stands.

PWSID	PWS Name	System Type	Rule	Violation or Compliance Begin Date(s)	Question	Supporting Details	State Response	Discrepancy Resolution
WV3301314	WHITE SULPHUR SPRINGS WATER	CWS	DBPR	10/1/07	Running annual average for chlorine residuals not calculated - why wasn't a violation assigned?	RAA in SDWIS is 1 but we believe this is incorrect as MRDL values are missing from SDWIS for 9 of 12 months in 2007. Is this some kind of default value?	As in WV3304301.	DHHR is not assigning MRDL violations at this time due to limited resources. Discrepancy stands.
WV9918012	CENTURY ALUMINUM OF WV	NTNCWS	DBPR	7/1/07, 10/1/07	More TCR samples were recorded than chlorine residual samples. Expect distribution system chlorine residuals to be taken at the same time and place as TCR samples. Why no M/R violation?	In July and October, collected one TCR and no MRDL.	As in WV3304301.	Discrepancy stands.

PWSID	PWS Name	System Type	Rule	Violation or Compliance Begin Date(s)	Question	Supporting Details	State Response	Discrepancy Resolution
WV9931030	CONSOL LOVERIDGE MINE MIRACLE RUN	NTNCWS	DBPR	7/1/07, 10/1/07	More TCR samples were recorded than chlorine residual samples. Expect distribution system chlorine residuals to be taken at the same time and place as TCR samples. Why no M/R violation?	For Aug, Sep, & Nov 2007.	As in WV3304301.	Discrepancy stands.
WV9931030	CONSOL LOVERIDGE MINE MIRACLE RUN	NTNCWS	DBPR	1/1/07-12/31/07	System failed to sample during compliance period. Why wasn't a violation assigned?	System appears to have conventional filtration, but no compliance information for TOC was found in the files. Is it available? Does this system have conventional filtration?	The system has a conventional treatment system, then the water goes through a green sand filter, then a reverse osmosis treatment. When the additional treatment was added, it is believed that the need for the conventional treatment system was no longer needed. WV is taking the position that TOC is not needed on this system.	Discrepancy stands as EPA HQ disagrees. Please see discussion in text.

PWSID	PWS Name	System Type	Rule	Violation or Compliance Begin Date(s)	Question	Supporting Details	State Response	Discrepancy Resolution
WV9903096	ELK RUN COAL-BLACK KING	NTNCWS	DBPR	1/1/07, 4/1/07, 7/1/07, 10/1/07	System failed to sample during compliance period. Why wasn't a violation assigned?	No distribution system chlorine residuals found for 2007.	As in WV3304301.	Discrepancy stands. State policy not to assign DBPR M/R violations at this time.
WV9919020	OX PAPERBOARD LLC	NTNCWS	DBPR	1/1/07, 4/1/07, 7/1/07, 10/1/07	More TCR samples were recorded than chlorine residual samples. Expect distribution system chlorine residuals to be taken at the same time and place as TCR samples. Why no M/R violation?	No MRDL samples found for 2007 and no RAA available in database.	As in WV3304301.	Discrepancy stands.

PWSID	PWS Name	System Type	Rule	Violation or Compliance Begin Date(s)	Question	Supporting Details	State Response	Discrepancy Resolution
WV9938066	POCAHONTAS MEMORIAL AND MARLINTON M S	NTNCWS	DBPR	1/1/07, 4/1/07, 7/1/07, 10/1/07	More TCR samples were recorded than chlorine residual samples. Expect distribution system chlorine residuals to be taken at the same time and place as TCR samples. Why no M/R violation?	No MRDL samples were found in database for this system. Do they chlorinate? (SDWIS/Fed says yes.)	As in WV3304301.	Discrepancy stands.
WV9905011	WHEELING PITTSBURGH STEEL CO	NTNCWS	DBPR	1/1/07	A violation was reported to SDWIS/Fed. State correctly rescinded the violation. Why wasn't it rescinded from SDWIS/Fed?	System provided results and state agreed received in 11/07, so no violation.	Violation was "Rejected" in SDWIS on April 7, 2008. This rejection should be reflected in the next upload to CDX to SDWIS Fed. Violation status on last upload was thru March 31, 2008 .	Discrepancy stands. Changed to CD instead of DF because compliance determination was late.

PWSID	PWS Name	System Type	Rule	Violation or Compliance Begin Date(s)	Question	Supporting Details	State Response	Discrepancy Resolution
WV9905011	WHEELING PITTSBURGH STEEL CO	NTNCWS	DBPR	1/1/07	A violation was reported to SDWIS/Fed. State correctly rescinded the violation. Why wasn't it rescinded from SDWIS/Fed?	System provided results and state agreed received in 11/07, so no violation.	Violation was "Rejected" in SDWIS on April 7, 2008. This rejection should be reflected in the next upload to CDX to SDWIS Fed. Violation status on last upload was thru March 31, 2008.	Discrepancy stands.
WV3303317	TRI LAKE HOLDINGS, INC.	CWS	IOC	1/1/05	System failed to sample during compliance period. Why wasn't a violation assigned?	State assigned vio for 1005, but could not find remaining IOCs for 2005-2007. Can you provide other data?	This appears to be a valid error. No information could be found on why the remaining contaminants were not cited.	Discrepancy stands.
WV9934042	ZELA ELEMENTARY SCHOOL	NTNCWS	IOC	1/1/05	Sampling results were received late. Why wasn't a violation assigned?	Received 8/15/07 samples in May 2008. No reminder letter sent or violation assigned.	The central office, as a result of this finding, has determined that non-community IOC violations are not being migrated to potential violations. We set up another group for non-community (sodium not required to be tested for non-community), and another group name should have been used to migrate these potential violations.	Discrepancy stands.

PWSID	PWS Name	System Type	Rule	Violation or Compliance Begin Date(s)	Question	Supporting Details	State Response	Discrepancy Resolution
WV3301905	CHARLES TOWN WATER DEPT	CWS	LCR	10/1/06	Violation was assigned, but with incorrect dates - can you explain?	52 violation assigned for 10/1/07, but expect to see a date of 10/1/06.	No response provided.	Discrepancy stands.
WV3301010	FAYETTEVILLE MUNICIPAL WATER	CWS	LCR	10/1/06	System failed to sample during compliance period. Why wasn't a violation assigned?	LCR samples were collected in 2003 and 2007, which is more than three years apart. Expect to see triennial samples at least every three years.	Suspect that the analysis for lead and copper may have been misfiled. Summaries have been recorded in SDWIS for the time frame of interest. The summary can be accessed via similar instructions as above. We began entering individual results sometime after 2005.	Summaries and individual samples in SSWR1 correspond to samples in 2003 and 2007, attributed to "compliance cycles" of 2002-2004 and 2005-2007. Discrepancy stands.
WV3304204	HARMAN TOWN OF	CWS	LCR	10/1/05	System failed to sample during compliance period. Why wasn't a violation assigned?	System sampled in Jul 02, should have sampled again in 2005, did not sample until Aug 06. No violation found.		Discrepancy stands.

PWSID	PWS Name	System Type	Rule	Violation or Compliance Begin Date(s)	Question	Supporting Details	State Response	Discrepancy Resolution
WV3302341	LOGAN CO PSD - STOLLINGS	CWS	LCR	10/1/05	System failed to sample during compliance period. Why wasn't a violation assigned?	Samples were collected in 2002 and 2007, which is more than three years apart, expect triennial samples to be collected at least every three years.	WV has allowed systems to collect samples in any year within a triennial period. One sample set required between 2002-04, One sample set between 2005-07 satisfies. Because of the upcoming Short Term Revisions that go into effect late next year, we are now transitioning to enforce samples no more than 3 years apart, beginning in 2010.	Discrepancy stands.
WV3301978	MEADOW BROOK WATER SYSTEM	CWS	LCR	10/1/07	Program calculated the 90th percentile on an incorrect number of samples. Why is this?	System collected only 5 of 10 required samples in 2007. Why wasn't a violation assigned?	See e-mail sent on July 15, 2008.	Discrepancy stands -- changed to a data flow error.

PWSID	PWS Name	System Type	Rule	Violation or Compliance Begin Date(s)	Question	Supporting Details	State Response	Discrepancy Resolution
WV3303001	MINGO COUNTY PSD CHATTAROY	CWS	LCR	10/1/07	A violation was reported to SDWIS/Fed. The PR team could find no reason for the violation. Why wasn't it rescinded from SDWIS/Fed?	State already reported a 5000-52 violation for 10/1/04. The 10/1/04 violation remains outstanding until the system returns to compliance.	During evaluation of ODS error reports, it was found that we have routinely been handling 51 and 52 violations incorrectly, probably from day one. We have issued subsequent violations and returned all violations to compliance upon two consecutive monitorig periods. This error was discovered in April 2008, and corrections have not been made as yet to the database. It will take some time to correct.	Discrepancy stands.

PWSID	PWS Name	System Type	Rule	Violation or Compliance Begin Date(s)	Question	Supporting Details	State Response	Discrepancy Resolution
WV3302514	MINISTERS RUN WATER ASSOC	CWS	LCR	10/1/06	A violation was reported to SDWIS/Fed. The PR team could find no reason for the violation. Why wasn't it rescinded from SDWIS/Fed?	A 5000-52 violation was correctly reported for 10/1/05, why was an additional violation assigned for 10/1/06? Expect to see only one "52" violation assigned. The violation then remains outstanding until the system returns to compliance.	During evaluation of ODS error reports, it was found that we have routinely been handling 51 and 52 violations incorrectly, probably from day one. We have issued subsequent violations and returned all violations to compliance upon two consecutive monitoring periods. This error was discovered in April 2008, and corrections have not been made as yet to the database. It will take some time to correct.	Discrepancy stands.
WV3300104	PHILIPPI CITY OF	CWS	LCR	10/1/05	Program calculated the 90th percentile on an incorrect number of samples. Why is this?	Based on system's population (increased to 3,983 in 8/03), should collect 20 LCR tap samples, rather than 10.	Apparently, the change in population was not caught by the compliance officer. SSWR1 has been enhanced to notify us when population has changed, and the potential rules that may be impacted by the change.	Discrepancy stands.

PWSID	PWS Name	System Type	Rule	Violation or Compliance Begin Date(s)	Question	Supporting Details	State Response	Discrepancy Resolution
WV3300807	QUEEN SHOALS PSD	CWS	LCR	10/1/03	Violation was reported to SDWIS/Fed with a violation date of 10/1/04 - Why use this date when the system failed to take the required sample in 2003?	System sampled 7/12/00, next due in 2003, not sampled until 2005. Violation date in SDWIS/Fed is 10/1/04 - we believe it should be 10/1/03 (or 1/1/04).	We have been implementing the Lead and Copper Rule similar to the Phase II/V rule. The system, in our perspective, was required to monitor in either 2002-03 or 04. The last chance to monitor was in Sep 04 We are modifying our procedures to be in conformance to the language in the new short term revisions to the lead and copper rule, which goes into effect in late 2009.	Discrepancy stands.
WV3302523	VALLEY FALLS PSD	CWS	LCR	1/1/03	90th percentile lead result for systems serving >3,300 population is not present in SDWIS/Fed. Why not?	9/9/03 sampling round 90th percentile level was "0."	FedRep is supposed to extract the information automatically from systems >3,300. I do not know why it was not extracted. This would be a question for SDWIS/help desk. Noted that the 2005 results were recorded as a summary with a 90th percentile as 0.00 (instead of < MDL), I suspect if the date is wrong. Noted results in 2002 and 2005, nothing in 2003?? i.e someone entered the data incorrectly.	Discrepancy stands.

PWSID	PWS Name	System Type	Rule	Violation or Compliance Begin Date(s)	Question	Supporting Details	State Response	Discrepancy Resolution
WV3300515	WASHINGTON PIKE PSD	CWS	LCR	10/1/06	Triennial sample not found - why wasn't a violation assigned?	Triennial samples taken in 8/03 and 9/07, more than three years apart.	WV has allowed systems to collect samples in any year within a triennial period One sample set rqd between 2002-04, One sample set between 2005-07 satisfies. Because of the upcoming Short Term Revisions that go into effect late next year, we are now transitioning to enforce samples no more than 3 years apart, beginning in 2010.	This policy is incorrect under the current LCR and LCRMR. Discrepancy stands.
WV9918012	CENTURY ALUMINUM OF WV	NTNCWS	LCR	10/1/05	Triennial sample not found - why wasn't a violation assigned?	System sampled in 2002 and 2007. Expect samples by 9/30/05.	No response provided.	Discrepancy stands.
WV9903096	ELK RUN COAL-BLACK KING	NTNCWS	LCR	10/1/06	System failed to sample during compliance period. Why wasn't a violation assigned?	Samples were collected in 2003 and 2007 which is more than three years apart. Triennial samples should be collected at least every three years.	We have been implementing the Lead and Copper Rule similar to the Phase II/V rule. The system, in our perspective, was required to monitor in either 2002-03 or 04 and again any year between 2005-07. We are moving towards changing our procedure in light of the new short term revisions to the lead and copper rule, which goes into effect in late 2009.	Discrepancy stands.

PWSID	PWS Name	System Type	Rule	Violation or Compliance Begin Date(s)	Question	Supporting Details	State Response	Discrepancy Resolution
WV9919020	OX PAPERBOARD LLC	NTNCWS	LCR	10/1/02	Violation was assigned, but with incorrect dates - can you explain?	System sampled in Sept 99 and July 07. Should have sampled in 2002, and did receive a violation, but violation begin date was 10/1/04 in SDWIS/Fed.	No response provided.	Discrepancy stands.
WV9902021	ROCKY KNOLL ELEMENTARY	NTNCWS	LCR	10/1/03	Violation was assigned, but with incorrect dates - can you explain?	System sampled in 2000 and expect to see samples by 2003. Did not sample until 2005. Violation assigned for 10/1/04, but expect date to be 10/1/03 or 1/1/04.	We have been implementing the Lead and Copper Rule similar to the Phase II/V rule. The system, in our perspective, was required to monitor in either 2002-03 or 04. The last chance to monitor was in Sep 04 We are moving towards changing our procedure in light of the new short term revisions to the lead and copper rule, which goes into effect in late 2009.	Discrepancy stands.
WV9905011	WHEELING PITTSBURGH STEEL CO	NTNCWS	LCR	10/1/05	Triennial sample not found - why wasn't a violation assigned?	System sampled 2002 and 2007. Expected to sample before 9/30/05.	No response provided.	Discrepancy stands.

PWSID	PWS Name	System Type	Rule	Violation or Compliance Begin Date(s)	Question	Supporting Details	State Response	Discrepancy Resolution
WV9934042	ZELA ELEMENTARY SCHOOL	NTNCWS	LCR	10/1/07	An M/R violation was assigned by the state and reported to SDWIS/Fed, but was assigned in error since a previous violation remained outstanding. Why was it assigned?	Assigned violation in 2004 which had not been returned to compliance, so second violation should not be assigned.	No response provided.	Discrepancy stands.
WV9934042	ZELA ELEMENTARY SCHOOL	NTNCWS	LCR	10/1/03	Triennial sample not found - why wasn't a violation assigned?	Sample was collected in 2000. Expect to see next sample by 2003. System sampling on 3-year compliance period schedule rather than triennially.	No response provided.	Discrepancy stands.

PWSID	PWS Name	System Type	Rule	Violation or Compliance Begin Date(s)	Question	Supporting Details	State Response	Discrepancy Resolution
WV3301905	CHARLES TOWN WATER DEPT	CWS	LT1	1/1/07-12/31/07	System did not note number of hours below standard, if any, for any month in 2007.	Form only says "continuous monitoring" and one value is noted on the MOR (presumably lowest value?)	No response provided.	Discrepancy stands.
WV3301010	FAYETTEVILLE MUNICIPAL WATER	CWS	LT1	1/1/07 - 12/1/07	System failed to complete reporting requirements. Why weren't violations assigned? No chlorine residual results were reported to the state. No MOR was found for January 2007.	System also only records and reports turbidity values three times per day. This does not appear to meet the rule requirement to record measurements every 15 minutes and then report the number of measurements taken.	Suspect that the MOR may have been misfiled. The data from the MOR are transferred into SDWIS.	Missing MOR data found. Discrepancies stand for incomplete data reporting.

PWSID	PWS Name	System Type	Rule	Violation or Compliance Begin Date(s)	Question	Supporting Details	State Response	Discrepancy Resolution
WV3301204	PETERSBURG TOWN OF	CWS	LT1	1/1/07-12/31/07	Why didn't system report number of chlorine residual samples collected at entry point, as well as values, for each month of 2007?	System reported "continuous monitoring" only. Expect that the number of measurements taken will be reported, according to LT1 ESWTR.	See Data Verification (2005) Status Report	DHHR is not assigning LT1 ESWTR violations at this time due to limited resources. Discrepancy stands.
WV3300104	PHILIPPI CITY OF	CWS	LT1	1/1/07 - 12/1/07	System failed to complete reporting requirements. Why weren't violations issued? Number of entry point chlorine residuals collected each month was not reported. Why not?	System is required to conduct continuous turbidity monitoring, why only three sample values per day reported? Number of turbidity samples for March not found on MOR.	There is supposed to be a checklist as part of the MOR that indicates whether the system is performing continuous monitoring. SWTR requires a system to report readings every four hours. Data are transferred from the MOR to SSWR1.	This system appears to be subject to LT1 ESWTR which requires systems with continuous monitoring to record results every 15 minutes and then report the number of measurements taken. Discrepancy stands.

PWSID	PWS Name	System Type	Rule	Violation or Compliance Begin Date(s)	Question	Supporting Details	State Response	Discrepancy Resolution
WV9914005	CAMP SANDY COVE - DINING HALL	TNCWS	Nitrate	1/1/07	Sampling results were not found. Why wasn't an M/R violation assigned?	A 7/30/07 sample was found in SSWR1, but no value is listed in the result field.	Apparently a data entry error.	Discrepancy stands.
WV3303317	TRI LAKE HOLDINGS, INC.	CWS	RAD	1/1/07, 4/1/07, 7/1/07, 10/1/07	System does not qualify for grandfathering , but has not completed all four quarters of initial monitoring. What is the schedule for this system to comply with the revised rule?	Only one distribution sample could be found (7/18/01 for Gross Alpha, Ra226 and Ra228), but there are two entry points.	No monitoring schedule was entered for radionuclides into SDWIS. Apparent WV oversight.	Discrepancy stands.
WV3301302	GREENBRIER COUNTY PSD #2	CWS	SOC	1/1/05	System failed to sample during compliance period. Why wasn't a violation assigned?	Could not find any waiver status in either files or the database and could not find any sampling data. Does this system have an SOC waiver?	There is a note in SSWR1 indicating a waiver was issued. Our current assumption is that the memo was overlooked, and we will need to review the file to see if we can find it.	Waiver information found for 2002-2004. None found for 2005-2007 in SSWR1 or the hard copy file. Discrepancy stands.

PWSID	PWS Name	System Type	Rule	Violation or Compliance Begin Date(s)	Question	Supporting Details	State Response	Discrepancy Resolution
WV3301311	RUPERT WATER	CWS	SOC	1/1/05	System failed to sample during compliance period. Why wasn't a violation assigned?	See reminder letter dated 11/19/07 in files asking for SOC results collected during the 2005 - 2007 compliance period. No sample and no waiver documentation found for this period.	Reminder must have been sent in error. There is no SOC schedule in SDWIS, and I have a copy of an SOC waiver letter issued in the past. Assumption is that the waiver memo may have been overlooked or misfiled.	Waiver not correctly renewed. Discrepancy stands.
WV3301314	WHITE SULPHUR SPRINGS WATER	CWS	SOC	1/1/05	A violation was reported to SDWIS/Fed. Vio was rescinded by state. Why wasn't it removed from SDWIS/Fed?	Vio was rescinded - system not scheduled to sample, per letter 2/19/08.	The violation was deleted out of SDWIS Feb 2008. Last update that would include this would have been done in May 15, 2008. This should show up in the ODS error report, and will be corrected.	Discrepancy stands.

PWSID	PWS Name	System Type	Rule	Violation or Compliance Begin Date(s)	Question	Supporting Details	State Response	Discrepancy Resolution
WV9903096	ELK RUN COAL-BLACK KING	NTNCWS	SOC	1/1/05	System failed to sample during compliance period. Why wasn't a violation assigned?	Appears that SOC waiver expired in 2004, no documentation renewing waiver was found. Expect to see one sample between 2005 - 2007.	Due to inadequate staffing levels, WV has not renewed many individual PWS waivers since 2004.	Discrepancy stands.
WV9934042	ZELA ELEMENTARY SCHOOL	NTNCWS	SS	1/1/02	Only one sanitary survey found - can one done within five years previous or five years after be provided?	1997 sanitary survey is most recent one in file. Expect to see one by 2002 or 2007 if under protected and disinfected status.	It appears that this system has not had a sanitary survey conducted within the required time frame. District personnel will schedule a sanitary survey as soon as possible.	Discrepancy stands.
WV9919055	340 ROADHOUSE	TNCWS	SS	1/1/03	Two sanitary surveys found, but they were done more than five years apart - why no M/R violation?	It appears this system is on a ten-year schedule. Has it been documented as a protected and disinfected source?	see WV9909004 comments.	Discrepancy stands.

PWSID	PWS Name	System Type	Rule	Violation or Compliance Begin Date(s)	Question	Supporting Details	State Response	Discrepancy Resolution
WV9939087	ALYESKA INC	TNCWS	SS	1/1/99	Only one sanitary survey found - can one done within five years previous or five years after be provided?	Expect a non-community to have a sanitary survey by 1999. Only 5/08 survey found.	WV Policy for non community systems with GW only sources is to perform sanitary surveys once every 10 years. Because there are several Alyeska systems, the previous sanitary survey was done as a group (2001 last year one was done) If a copy of the 2001 survey is required, one can be provided upon request.	A copy of the sanitary survey would have to be provided to verify the ten-year frequency. However, as other systems reviewed have no documentation of protected and disinfected status, this would likely remain a discrepancy.
WV9947030	BLACKWATER CENTER	TNCWS	SS	1/1/05	Two sanitary surveys found, but they were done more than five years apart - why no M/R violation?	Done 4/07 and 3/00.	No response provided.	Discrepancy stands

PWSID	PWS Name	System Type	Rule	Violation or Compliance Begin Date(s)	Question	Supporting Details	State Response	Discrepancy Resolution
WV9914005	CAMP SANDY COVE - DINING HALL	TNCWS	SS	1/1/04	No hard copies of sanitary surveys found - can you provide them?		Copy requested from DO	Discrepancy stands for second sanitary survey five years later. Did not see documentation of copy requested from DO.
WV9933048	COOLFONT MOUNTAINSIDE ASSOCIATION - NORTH	TNCWS	SS	1/1/99	Only one sanitary survey found - can one done within five years previous or five years after be provided?	Only 8/04 sanitary survey found.	WV Policy for non community systems with GW only sources is to perform sanitary surveys once every 10 years.	Discrepancy stands.
WV9909004	DODDRIDGE COUNTY PARK	TNCWS	SS	1/1/04	Only one sanitary survey found - can one done within five years previous or five years after be provided?	Only 8/99 survey found. SSWR1 notes that the next survey is due 8/09. Please provide documentation that this is a protected and disinfected source if so.	We consider all non-community ground water systems as protected and chlorinated (we require all systems to chlorinate). We have always have done non-community systems on a ten year frequency since TCR implementation. We are now trying to increase the frequency to once every five years in anticipation of the GWR.	This does not meet the criteria for documentation of protected and disinfected systems. Discrepancy stands.

PWSID	PWS Name	System Type	Rule	Violation or Compliance Begin Date(s)	Question	Supporting Details	State Response	Discrepancy Resolution
WV9909031	MILETUS COUNTRY MARKET	TNCWS	SS	1/1/04	Only one sanitary survey found - can one done within five years previous or five years after be provided?	Only 5/99 survey found. Please provide documentation that this is a protected and disinfected source if it is on a 10 year schedule.	see WV9909004 comments	This does not meet the criteria for documentation of protected and disinfected systems. Discrepancy stands.
WV9919086	RIVER RIDERS	TNCWS	SS	1/1/00	Only one sanitary survey found - can one done within five years previous or five years after be provided?	Only 9/05 survey found.	see WV9909004 comments	Discrepancy stands.
WV9938038	RYDERS RESTAURANT	TNCWS	SS	1/1/04	Two sanitary surveys found, but they were done more than five years apart - why no M/R violation?	Sanitary surveys found for 1999 and 2007. No documentation of protected and disinfected status.	No response provided.	Discrepancy stands.

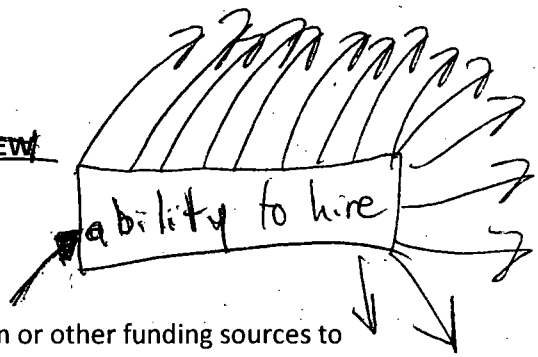
PWSID	PWS Name	System Type	Rule	Violation or Compliance Begin Date(s)	Question	Supporting Details	State Response	Discrepancy Resolution
WV9955094	WAGON WHEEL	TNCWS	SS	1/1/99, 1/1/04	No hard copies of sanitary surveys found - can you provide them?	Sanitary survey file was empty and no site visits listed in SWR1. Expect to see them in 1999 and 2004 if first done by deadline of 6/29/99.	No response provided.	Discrepancy stands.
WV9938048	WATOGA STATE PARK BUSH PLACE	TNCWS	SS	1/1/99	Only one sanitary survey found - can one done within five years previous or five years after be provided?	Found sanitary surveys for 6/03 and 7/96.	A combined sanitary survey was conducted in 1996 on all Watoga State Park systems. Partial report attached.	Discrepancy stands.
WV9919055	340 ROADHOUSE	TNCWS	TCR	1/1/07	System failed to sample during compliance period. Why wasn't a violation assigned?	No TCR sample found in SSWR1 for 1Q07, but system does not appear to be seasonal. Found correct M/R violation for 2Q07.	The system was closed for a period of time and reopened under new ownership on Jan 12, 2007. WV allows some time for compliance with new ownership	Discrepancy stands. Federal regulations require TCR monitoring during any quarter they are open.

PWSID	PWS Name	System Type	Rule	Violation or Compliance Begin Date(s)	Question	Supporting Details	State Response	Discrepancy Resolution
WV3301978	MEADOW BROOK WATER SYSTEM	CWS	VOC	1/1/07, 4/1/07	System failed to take quarterly samples after a VOC detect. Why weren't violations assigned?	Toluene was detected in sample collected 12/06, and system was not instructed of the need for quarterly sampling until 5/07. Why the delay?	WV could not find any documentation on why the system was not notified to go to quarterly monitoring more timely. WV takes the position that we notify the system to increase monitoring prior to any violations being issued.	Discrepancy stands.

violations w/in 45 days of quarter

RECOMMENDATIONS FROM PROGRAM REVIEW

DEC 19, 2008



Program Organizational Structure

1. DHHR together with Region 3 should investigate a fee program or other funding sources to improve staffing so that West Virginia can fulfill its primacy responsibilities.
2. DHHR should continue to explore methods to accelerate compliance determinations so that it meets federal timelines. Improved use of SSWR1 would greatly add to this effort.

Waiver Information

~~SDWIS "2"~~ Web Release 2

1. Systems should not have monitoring waivers if those waivers have not been renewed for the current compliance cycle.

State Assistance

1. None

FULLY STAFFED DATA MGMNT

State Data System

1. DHHR requires training in using SSWR1 to its fullest capacity, along with assistance in tailoring the modules to perform more automated compliance determination for the program. The portion of the rules that are not implemented because DHHR feels the SSWR1 calculator does not work, can in fact have automated compliance determination, if daa are correctly entered and the modules are tailored to state business practices. Region 3 agrees and encourages DHHR to schedule training for staff on SSWR1. DHHR notes that this is the same issue responded to under Data System Successes and Challenges.
2. DHHR should address the issue of labs sending data only to the systems and not copied to DHHR.
3. Data entry accuracy should be revisited. Region 3 suggested that DHHR should consider the source of the errors and address them as soon as possible to ensure data quality. Region 3 notes that this is an ongoing activity between the state and the Region, and that it is West Virginia's responsibility to ensure that rescinded (i.e. invalidated) violations are communicated to Region 3 so that they can be deleted out of SDWIS/Fed.
4. Region 3 should assist DHHR further in correcting errors and ensuring that rejected violations are rescinded in SDWIS/Fed.

Sample Collection, Analysis, and Laboratory Certification

1. None

~~From~~ FOLLOW UP

General Program

1. Region 3 should not grant primacy for any rules that West Virginia is unable to fully implement.

Inventory

1. None

** TCR discussion
~~implem~~ Reg vs. SDWIS
* Phase II/V
* Stage 1

Sanitary Survey

1. If West Virginia wishes to allow "protected and disinfected" status to noncommunity systems, this status should be conferred system by system, rather than as a blanket decision. In addition, chlorination alone is not enough to make a system eligible for this status. Some determination of vulnerability and also a statement that the source has been determined to be protected must also be made. DHHR responds that district office personnel are in the process of shortening the frequency for all noncommunity ground water systems on a five-year frequency, in anticipation of the upcoming GWR, making a "protected" determination unnecessary.
2. Ground Water systems should receive sanitary surveys at least once every five years unless granted specific protected and disinfected status. Region 3 agrees that an official determination of a "protected" source must be decided upon and officially documented, before a reduced (i.e. greater than five years) cycle can be allowed.

Consumer Confidence Report Rule

1. DHHR should not allow systems a "grace period" for delivery of CCRs, as the federal rule has no allowances for it. HDDR explains that a three-day grace period was established for mail delay. As DHHR understands, whenever the post office receives a required document, the law considers the document received by the recipient, as the post office is considered an agent of the recipient. The grace period was established because of this interpretation. In other words, the public water system could mail the document on June 29th, but DHHR might not physically receive the document until after July 1st, in the view of the understood legal interpretation, the public water system met the legal definition of delivery. The team reminds DHJHR that this does not meet the federal rule, which requires delivery to the state by July 1 and October 1, regardless of the delivery medium used.
2. DHHR should assign both 7000-71 and 7000-72 violations for the same CCR year when the situation warrants it. DHHR notes that they did not fully explain the procedures in place in WV and explain in comments to the draft report that if a major violation is assigned (7000-71), the violation will not be returned to compliance (RTC) until all elements are complied with. In other words, with this policy in place, a minor violation (7000-72) cannot occur in conjunction with a major violation (7000-71). If a minor violation is issued (inadequate or incorrect information in the CCR or lack of certification by due date), it is obvious that a major violation cannot occur concurrently. The team agrees that if a 7000-71 remains outstanding, then a 7000-72 should not be assigned. If DHHR's policy includes not allowing an RTC until the certification is received, then this meets the federal rule. If, however, the system has been RTC'd following a 7000-71 and then fails to provide certification on time, a 7000-72 should also be assigned.

Total Coliform Rule Bottle delivery @ NCWS. NOT 14 day repeat; function of SDWIS

1. DHHR should revise its policy of allowing 14 days for repeat sampling afternotification of a total coliform positive. Many states require systems to keep repeat sampling bottles on hand, to avoid the time-delay introduced by acquiring bottles. Region 3 agrees with these statements and recommendations, in particular revising the state poicy of allowing 14 days for repeat sampling after notification of a total coliform positive.
2. Systems on quarterly monitoring should monitor in every quarter they are open, regardless of changes in ownership.

Phase II/V Rule

1. DHHR shold ensure that a system with a Phase II/V detection should monitor for two additional consecutive quarters, if a ground water source, and four additional quarters, if a surface water source, to determine whether the system is R & C below the MCL. Confirmation samples should not be used to replace quarterly monitoring.
2. DHHR shold pursue the IOC violation migration error and correct it. DHRR responds that, some time ago, it was discovered that there was a difference in the contaminants between what is required to be collected by CWSs and NTNCWSs for IOCs. A new "group" was assigned for the NTNCWS systems. The compliance officer must specify the contaminant "group" of potential violations to migrate. Based on the comments found for Zela Elementary School, it appears that the compliance officer forgot that there are two "groups" of IOCs, one for CWSs and one for NTNCWSs. This was human error, and a work process is being developed to try and prevent this error from occurring in the future.
3. DHHR should address the delays in delivery of analytical data. Federal regulations require that water systems report the results to the state within (1) the first 10 days following the month in which the result is received, or (2) the first 10 days following the end of the required monitoring period as stipulated by the state, whichever of these is shortest.

Stage 1 ~~DBP~~ Disinfection By-Products Rule

1. DHHR should perform compliance determinations for all aspects of Stage 1 DBPR. DHHR responds that the program is considering moving the determination of those elements of the Stage 1 rule that are not currently being implemented to the District Offices, until the personnel positions can be filled and those persons adequately trained, to address these issues.
2. As in the example of the system with conventional treatment that is either incorporated or bypassed, DHHR should determine which scenario is occurring at the plant, designate the treatment used and the compliance requirements.
3. Distribution system chlorine residual samples should be taken at the same time and place as all compliance TCR samples, including repeat samples or "extra" routine samples.
4. Stage 1 DBPR monthly and running annual averages should be calculated and reported to West Virginia as required by the regulation. If DHHR chooses, they may perform and record these calculations for the systems.

Radionuclide Rule

1. DHHR should ensure that systems either have appropriate grandfathering data for all sources or monitor for radionuclides at all sources according to the revised rule.

Lead and Copper Rule

1. DHHR should discontinue the use of three-year "compliance periods" for systems on triennial monitoring. Instead, DHHR should adjust their monitoring schedules to reflect the federally-required six-month, annual or triennial cycles. These dates should be adjusted in SSWR1 to ensure that the correct violation dates are generated in the case of any M/R violations. DHHR responds that, in anticipation of the STR LCR, DHHR assigned a specific year for systems to monitor for lead and copper. Future versions of SDWIS/State will allow tracking of monitoring in specific years. DHHR notes that this recommendation was already being addressed during the on-site review.

2. Region 3 and DHHR should investigate why not all lead sample and ALE values are reported to SDWIS/Fed. Conversely, the state should eliminate multiple monitoring violations, as only one open violation should be assigned until the system returns to compliance.
3. West Virginia systems should be reviewed to ensure that they are taking the correct number of samples given population changes that may have occurred since schedules were initially set.

Surface Water Treatment Rule, Interim and Long Term 1 and 2 Enhanced Surface Water Treatment Rules, and Filter Backwash Rule

1. DHHR should perform compliance determination for all aspects of SWTR, IESWTR and LT1ESWTR.
2. Systems using continuous monitoring should be required to report according to federal regulations.

Public Notification

1. None

Now issuing turbidity violations

EPA COMMENTS TO WVDHHR DRAFT DV REPORT – 10/30/08

EPA's comments are based on review and discussion by the Drinking Water Branch, Dan Campanelli of the Ground Water and Enforcement Branch and a conference call with DHHR on 10/30/08.

INTRODUCTION

SUBSECTION A – Purpose of Review

Page 1, Paragraph 1:

Please add the name Dan Campanelli (EPA Region 3), as part of the review "team." **(DC)**

Cadmus: Added. Apologies to Dan!

PRIMACY AGENCY PROGRAM SUMMARY

SUBSECTION A – Program Organizational Structure

Page 3, Paragraph 3, Sentence 3:

The draft states, "... found that mailed and faxed analytical data sometimes are lost." With respect to data being sometimes lost, can DHHR implement an internal "fail safe" procedure/process to prevent data from being lost? **(DC)** Are the data getting lost by the Post Office or DHHR? **(WFJ)**

EPA/STATE Discussion: DHHR has new fax machine and is looking at mailing procedures for possibility of creating a mailing log. EPA suggested setting up a "pouch" service for data coming in from the pws so the state can identify this particular mail from everything else.

Cadmus: Added this information to this report section under Successes & Challenges.

Page 3, Bullet 1, Sentence 2:

The draft states, "The lack of a fee structure likely contributes to the problem" (re: staff turnover). There is adequate funding for personnel and positions. A fee schedule will not resolve the problem of a) a large portion of our personnel being at or near retirement; b) younger personnel finding advancement opportunities elsewhere; and 3) a somewhat bureaucratic hiring procedures for all State personnel. **(DHHR)**

Cadmus: Comment added to report

Page 3, Bullet 3, Sentence 1:

The draft states, "Compliance determination is sometimes performed late, which led to a number of discrepancies." Please note that validation of violations in a timely manner is essential to prevent data "timeliness" issues which can influence data quality. Has DHHR taken steps to resolve the "lack of resources" issue? **(DC)** Have the rejected data from the end of 2007 been addressed? Why is this data being rejected? **(WFJ)**

DHHR believes that there are two issues that caused late compliance determination at the end of 2007, one being the lack of full staff of compliance officers and the other being the end of the triennial cycle. The end of 2007 resulted in the end of a quarterly compliance period, the end of an annual compliance period and the end of a triennial compliance period for different rules. The test results are not required to be received until the 10th of January, and allowing time for data

entry, compliance reports cannot be run in SDWIS until January 15th. Two staff are limited on the amount of time to run the reports, research all the potential violations for data input accuracy, failure to input data, etc., for each rule, and for three different compliance periods. DHHR believes that once compliance officers are fully staffed and trained, most end of year compliance periods (and 4th Quarter compliance periods), all potential violations will either be rejected or validated in a timely fashion, but every third year, may still encounter difficulties in timely compliance determination. **(DHHR)**
EPA/STATE Discussion: DHHR plans to move some compliance duties to district offices which have a greater number of staff.

Cadmus: Added this information to this bullet.

Page 3, Bullet 3, Sentence 4:

The draft states, "DHHR reported that all compliance determinations been completed for data through 2007 and ..." This sentence seems to be inconsistent (contradicts) the statement noted above (Bullet 3, Sentence 1). **(WFJ)** Also, EPA believes that the word "had" should be added, such that the sentence reads, "DHHR reported that all compliance determinations had been completed for data through 2007 and ..." **(DC)** EPA asks CADMUS to clarify this statement by noting that at the time of the DV, DHHR had completed all compliance determinations but they were late because the determinations were due in April. **(WFJ)**

Cadmus: Corrected and clarified.

PRIMACY AGENCY PROGRAM SUMMARY

SUBSECTION A – Program Organizational Structure

Page 4, Recommendations, #2 (top of page), Last Sentence:

The draft states, "Improved use of SSWR1 would greatly add to ..." This appears to contradict CADMUS statement on page 6; section D, 3rd para. – "... DHHR is fully implementing SSWR1 now ..." EPA asks CADMUS to clarify. **(WFJ)**

EPA/STATE Discussion: DHHR stated SSWR1 is slower than Release 8 (previous version)

Cadmus: Corrected page 6 to say "DHHR was using SSWR1 exclusively at the time of the review. Added DHHR comment on SSWR1 speed to the Successes and Challenges section.

SUBSECTION B – Waiver Information

Page 4, Paragraph 3, Last Sentence:

The draft states, "New SOC waivers will not reduce systems past once every nine years." EPA recommends revising sentence to read – "New ... will not reduce systems beyond once every nine years." **(WFJ)**

Cadmus: Corrected

Page 4, Bullet 1, Sentence 1:

The draft states, "Due to inadequate staffing levels, DHHR has not reviewed many individual PWS waivers since 2004." Is there a DHHR course of action? Has DHHR now taken action to review the outstanding waivers? **(DC)**

Cadmus: Noted in the report that Region 3 inquired about this.

SUBSECTION C – State Assistance

Page 5, Paragraph 1:

The draft should read as follows, "DHHR does not have a fee program. The only fees charged are for permit fees for construction projects and fees charged by the Office of Laboratory Services (OLS), which charge for laboratory certification for contaminants tested for water systems in WV and fees for analysis of water samples submitted directly to OLS. (DHHR does NOT charge operators for certification or training). **(DHHR)**

Cadmus: Corrected.

Page 5, Bullet 1:

The draft states, "In response to ..." Please delete the entire bullet. **(DC)** EPA is not aware of any Agency actions recommended by CADMUS from the previous review. EPA has no record of DHHR asking for EPA assistance to address previous recommendations. EPA included all recommendations from previous review in PWSS Reporting Checklist to track state progress on addressing issues. Perhaps CADMUS can clarify this statement. **(WFJ)**

Cadmus: The purpose of these reviews is to provide both the Region and the state with a framework for addressing issues that hinder the state program's effectiveness. When reports have been sent to the Regions, EPA HQ notes that the findings can be used in discussions with the state. To follow-up on this expectation that the Regions and states will team up to address the review findings, a new document has been created: the Questions on West Virginia's Corrective Actions since the July 2005 Review, included in the report as Appendix A. Please note that in the first row, DHHR's reply to the question: "What steps have the region and state taken since the last Review to address recommendations found in the report?" "7/1/08 DLW/HMC-No help was received from the Region." The information that Region 3 felt they had not been asked for help and that recommendations from the previous review were included in the PWSS Reporting Checklist has been added to this bullet.

PRIMACY AGENCY PROGRAM SUMMARY

SUBSECTION C – State Assistance

Page 5, Bullet 5:

Change this bullet as follows: DHHR sends a biannual newsletter to all WV certified operators. DHHR also contributes to the Public Service Commission (PSC) bimonthly newsletter which is sent to all public water systems that are regulated by the PSC. DHHR also regularly contributes to articles to the WV Rural Water Association monthly magazine that is distributed to all of their members. **(DHHR)**

Cadmus: changed as suggested.

Page 5, Bullet 7, Sentence 3:

The draft states, "... found to be effective for overall compliance (see Section II. C Sanitary Surveys) and ..." Sanitary Surveys is Section III. Please revise this sentence to reflect the correct section of the report. **(DC/WFJ)**

Cadmus: Corrected.

SUBSECTION D – State Data System

Page 6, Paragraph 1, Last Sentence:

The draft states, "Sometimes labs will send data only to the systems ..." Why is this happening? What has the state done to address this issue? **(WFJ)**

Cadmus: Added to report that the Region inquired about this. Also added as a recommendation.

Page 6, Paragraph 4, Sentence 3:

The draft states, "Region 3 and DHHR are trying to clear up old enforcement actions for EPA-issued violations." Please note that the discussions between Region 3 and DHHR have been extremely fruitful and also note that most violations for DHHR are state issued violations that have been uploaded to the federal system by DHHR. EPA does not believe that the violations are EPA-issued violations. We therefore would prefer that the words "EPA issued" are replaced by the word "old" such that the sentence reads, "Region 3 and DHHR are trying to clear up old enforcement actions for old violations." **(DC)**

Cadmus: corrected and information added.

It was discussed with Region III that submissions might need to be submitted more frequently to more quickly resolve issues between the SDWIS/State data base and the SDWIS/ODS data, however, the corrections made between the May 15th upload and the August 15th upload substantially decreased in the number of errors. An example of this reduction, which was found to be typical, was the Action Error Report. In May, the report was 87 pages in length, with the August report found to be 4 pages in length. There are a few remaining issues to be resolved in the November upload, but is already near maintenance levels. It now appears unlikely that additional uploads will be necessary to address discrepancies between the State and Federal databases. **(DHHR)**

Cadmus: Comment added to report

Page 6, Bullet 1, Last Sentence:

The draft states, "However, data entry errors caused a number of discrepancies ..." Have these data entry errors now been corrected? **(DC)** What are the "entry errors" a product of, i.e., lack of trained staff, etc.? DHHR should consider the source and address as soon as possible to ensure Q/A of data. **(WFJ)**

PRIMACY AGENCY PROGRAM SUMMARY

SUBSECTION D – State Data System

Page 6, Bullet 1, Last Sentence:

A review of the recommendations and challenges in III.F(Phase II/V) and III.I (LCR) do not enforce the statement that data entry errors caused the discrepancies noted in these sections. DHHR takes the position that most of the errors noted are related to empty positions (vacant or absent) for the compliance officers. DHHR has recently hired a manager for the Data Management position which has been tasked to develop a QA/QC process for the data entry process. **(DHHR)**

EPA/STATE Discussion: DHHR stated it is working on a QA/QC process.

Cadmus: Comments added to recommendation #3.

Page 6, Bullet 2, Sentence 2:

The draft states, "However the program is not performing compliance determinations for rules that DHHR feels the SSWR1 calculator handles inadequately ..." Has DHHR communicated this to the SDWIS help desk? If so, has the SDWIS help desk responded back to DHHR with a resolution (work around) or a schedule for a future fix? **(DC)**

There were issues in the automated compliance determinations in the old SDWIS 8.1 version, but has been addressed in SDWIS Web Release 1. It is apparent from the comments that the changes made in SDWIS WR1(SSWR1) has not been communicated with the compliance officers. There was an issue with MRDL compliance determination that did work properly with Version 8.1, but DHHR data entry staff was, unknowingly, overwriting the SDWIS computations. Corrections had already been made at the time of the last review, but 12 months had not elapsed for SDWIS to compute true MRDL values. Training of compliance officers in how SDWIS computes compliance appears to be in order. **(DHHR)**

EPA/STATE Discussion: DHHR stated the issue is training staff on the SSWR1 database.

Cadmus: Comments added to report.

Page 7, Bullet 2:

The draft states, "Several . . . where violations had not been correctly rescinded from SDWIS/Fed." Please note that this is an on-going activity between WV and Region 3 and that it is up to WV to ensure that "rescinded" (i.e. invalidated) violations are communicated to EPA Region 3 such that they can be deleted out of SDWIS/Fed." **(DC)**

Cadmus: Comment added to report

Page 7, Bullet 4, Sentence 1:

The draft states, "DHHR is waiting for GEC to provide new tools, such as "SWMMR and SOX (return to compliance) reports." Does DHHR have a schedule of when GEC will provide these tools? Also, please give the definition of the acronym "SWMMR." **(DC)**

EPA/STATE Discussion: EPA and DHHR requests CADMUS to replace the term "GEC" with "SDWIS contractor" throughout the report. DHHR also stated "SWMMR" should read "SWMIR" and CADMUS should correct accordingly.

Cadmus: Corrected. Please note that the definition of "SWMIR" has not been identified. Cadmus is not privy to the SDWIS contractor's materials and cannot find this information.

Page 7, Bullet 5, Sentence 2:

The draft states that the database administrator has been "temporarily" acting in the position for the last six years. While the person that has been serving as the database administrator for the past six years isn't the person that ultimately will have that responsibility, this does provide valuable resources during times of transition between new personnel learning the position. The database administrator position has changed four times over the past six years and fortunately one person has been available to act in the temporary position. **(DHHR)**

Cadmus: Comment added to report

PRIMACY AGENCY PROGRAM SUMMARY

SUBSECTION D – State Data System

Page 7, Recommendations, # 1, Sentence 1:

EPA agrees with CADMUS and encourages DHHR to schedule training for staff on SSWR1. **(WFJ)**

Cadmus: Comment added to report

Page 7, Recommendations, # 1, Sentence 2:

The draft states, "Many of the rules that are not implemented because DHHR feels the SSWR1 calculator does not work, can in fact have automated compliance determination, if ..." Since DHHR feels that the SSWR1 calculator does not work, has DHHR communicated this to the SDWIS help desk? If so, has the SDWIS help desk responded back to DHHR with a resolution? Is there a schedule for resolution of this issue? **(DC)**

DHHR suggests revising the portion of the sentence that states "Many of the rules" to "The portion of the rules". **(DHHR)**

Cadmus: Revised as suggested.

Consider revising the recommendation in light of comments made for page 6, Bullet 2. Corrections had already been made at the time of the last review, but 12 months had not elapsed for SDWIS to compute true MRDL values. Training of compliance officers in how SDWIS computes compliance appears to be in order. **(DHHR)**

Cadmus: Note added to refer to this comment.

Page 7, Recommendations, # 3:

The draft states, "Region 3 should assist DHHR further in correcting errors and ensuring that rejected violations are rescinded ..." Please note that this is an on-going activity between DHHR and Region 3. Please also note that DHHR must always ensure that the "rescinded" (i.e. invalidated) Violation ID numbers are communicated to EPA Region 3 such that those violations can be deleted out of SDWIS/Fed. **(DC)**

Cadmus: Noted

PROGRAM IMPLEMENTATION

SUBSECTION A – General Program

Page 8, Bullet 1, Sentence 1:

DHHR suggests changing the portion of the sentence that states "these rules are not being implemented" to "these rules are not being fully implemented". **(DHHR)**

Cadmus: revision accepted

Page 8, Bullet 1, Sentences 2:

The draft states, "Systems . . . are ostensibly . . ." CADMUS seems to be implying that systems may not be conducting M/R according to new rules despite all have been trained. EPA request that CADMUS clarify or confirm this statement. **(WFJ)**

Cadmus: Because compliance determination had not been done on these systems at the time of the review, it could not be confirmed whether all systems are monitoring and reporting according to the new rules or not. Clarified in text.

Page 9, Bullet 3, Last Sentence:

The draft states, "West Virginia and DHHR should work together to ..." This sentence does not seem logical. I believe that rewording is necessary. **(DC)**

Change "West Virginia" to "EPA Region 3" so that it reads, "EPA Region 3 and . . ." **(DHHR)**

Cadmus: Corrected

PROGRAM IMPLEMENTATION

SUBSECTION B - Inventory

Page 9, Paragraph 1, Sentence 3:

The draft states, "... are often obtained from the PSC." Please give the definition of the acronym "PSC." **(DC)**

Cadmus: Previously defined on Page 6

Page 9, Paragraph 1, Sentence 6:

The draft states, "DHHR staff use GEC's "SWFF" program to make inventory updates in the field." Please give the definition of the acronym "SWFF." **(DC)**

EPA/STATE Discussion: DHHR stated "SWFF" should read "SWIFT" and CADMUS should correct accordingly.

DHHR suggests changing the last three sentences as follows: District Office staff also review information with the systems, especially the contact information. DHHR staff use their SDWIS contractor's program known as SWIFT (Safe Water Information Field Tool) [Recommend making the change from SWFF to SWIFT throughout the document] to make inventory updates in the field. This information is uploaded by the District Office staff to a shared drive as sanitary survey reports are completed. The data is uploaded to SSWR1, using the EPA developed program, Migrate to State, on a regular basis by Central Office personnel. **(DHHR)**

Cadmus: Corrected as suggested

SUBSECTION C – Sanitary Survey

Page 10, Paragraph 4, Sentence 2:

The draft states, "Ground water systems are typically surveyed every five years, while many non-communities have been reduced to a ten-year cycle." Since DHHR disinfects all of its public water systems, and it has been determined that the source is not Ground Water Under the Direct Influence of Surface Water (GUDI), their policy has been that the sanitary survey can be conducted every ten years for (i.e. Transient) Non-Community systems. However, EPA believes that an official determination of "protected" source must be decided upon and officially documented, before a reduced (i.e. greater than 5 years) cycle can be allowed. **(DC)**

Cadmus: Comment added to Recommendation #2

Page 11, Paragraph 1, Last Sentence:

The draft states, "Correction of deficiencies can take anywhere from one week to five years." This statement doesn't appear to be of any real value. DHHR recommends removing this statement from the report. **(DHHR)**

Cadmus: This information is of specific interest to EPA Headquarters and has been retained.

Page 12, Bullet 2:

The draft states, "DHHR does not assign or report violations for failure to meet the sanitary survey schedule." EPA requests that CADMUS clarify the TCR provision which refers to sanitary surveys (141.21(d)). **(WFJ)**

Cadmus: Clarified

EPA/State Discussion: DHHR stated that since the pws does not conduct the sanitary surveys, they do not practice issuing violations to the pws for failure to meet the sanitary survey schedule.

Cadmus: Comment added to report with further clarification

Page 12, Recommendations, # 1, Last Sentence:

The draft states, "Some determination of vulnerability must also be made." EPA recommends revising this sentence such that the sentence reads, "Some determination of vulnerability and also a statement that the source has been determined to be protected must also be made." **(DC)**

Cadmus: Added to Recommendation #1

PROGRAM IMPLEMENTATION

SUBSECTION C – Sanitary Survey

Page 12, Recommendations, # 1, Last Sentence:

DHHR district office personnel are in the process of shortening the frequency for all non-community ground water systems on a five year frequency, in anticipation of the upcoming Ground Water Rule, making a "protected" determination unnecessary. **(DHHR)**

Cadmus: Comment added

SUBSECTION D – Consumer Confidence Rule

Pages 12-13:

EPA agrees with the statements and recommendations of CADMUS. If the state is interested, EPA is willing to put on a training session on the CCR and/or PN Rules for DHHR staff. **(PKW)**

Cadmus: Comment added

Page 13, Bullet 2:

A three day grace period was established for mail delay. As DHHR understands, whenever the post office receives a required document, the law considers the document received by the recipient, as the post office is considered an agent of the recipient. The "grace period" was established because of this interpretation. In other words, the public water system could mail the document on June 29th, but DHHR might not physically receive the document until after July 1st, in the view of the understood legal interpretation, the public water system met the legal definition of delivery. **(DHHR)**

Cadmus: Comment added to report

Page 13, Bullet 3/Recommendation 2:

DHHR did not fully explain the procedures in place in WV- If a major violation is issued (7000-71), the violation will not be Returned to Compliance (RTC) until all elements are complied with, in

other words, with this policy in place, a minor violation (7000-72) cannot occur in conjunction with a major violation (7000-71). If a minor violation is issued (inadequate/incorrect information in CCR or lack of certification by due date), it is obvious that a major violation cannot occur concurrently. **(DHHR)**

Cadmus: Comment added to report with further explanation

SUBSECTION E – Total Coliform Rule

Page 13, Paragraph 2, Sentence 1:

The draft states, "... will invalidate a total coliform positive sample if the system requests it and the request meets the criteria for invalidation: 1) ... 2) ... 3)..." It is unclear if all of or some of the criteria has to be met in order for the sample to be deemed invalid. To clarify, please add the words, "all of" or "some of" to the sentence. **(DC)**

Cadmus: Clarified

Page 14, Bullet 4 and Recommendation #1:

The 14 days is the time from the initial coliform collection date and the repeat sample collection date. The "best case scenario" is a sample is collected on day one, received by the laboratory on day two, the results of the total coliform test are found on day three, a fecal coliform test is run on day 4, the results are faxed to Central Office on Day 5, and the district office and the public water system is notified on the same day. The system collects the repeat samples on day 6. A worse case (and more typical) scenario would be that the sample is collected on day 1, the sample is mailed on day 2, the sample begins analysis on day 3, the confirmation test is done on day 4, the results are obtained on day 5, the Central Office is notified on day 8 (day 6 and 7 is the weekend), District Office is notified on day 9, District Office cannot make phone contact, and mails a letter advising the system on day 10, and the system does not receive the letter until day 12, and collects the sample on day 13. One additional day was added, in case a holiday occurs within this scenario. **(DHHR)**

PROGRAM IMPLEMENTATION

SUBSECTION E – Total Coliform Rule

Page 14, Bullet 4 and Recommendation #1 cont.:

Please note that this scenario assumes the system has bottles on hand for collecting repeat samples. Issues occur when the spare bottles on hand are over six months old, as Office of Laboratory Services (OLS) considers these bottles "out of date", and recommend that the system not use these bottles. Most systems do not routinely get coliform present samples and it is typical that the system must obtain new bottles prior to repeat sampling, even if they have spare bottles on hand. Another issue in WV is that the OLS does not routinely accept samples on Friday, Saturday or Sunday. A skeleton staff is on hand to complete the laboratory work for samples received on Thursday. DHHR believes that 14 days is a conservative value, but should be long enough to force the system to be diligent in collecting the repeat samples, but may not be liberal enough to foresee all possibilities. **(DHHR)**

Cadmus: Comment added to report

Page 14, Recommendations, # 1, Sentence 1:

The draft states, "DHHR should revise its policy of allowing 14 days of repeat sampling after notification of a total coliform positive." Has DHHR issued an official statement of a policy change to its district offices? **(DC)** EPA agrees with the statements and recommendations of CADMUS in

particular, revising state policy of allowing 14 days for repeat sampling after notification of a TC positive. **(WFJ)**

Cadmus: Comment added to recommendation

SUBSECTION F – Phase II/V Rule

Page 14, Paragraph 1:

The draft report mentions that analytical detections are typically one to two weeks old by the time the central office receives them. EPA requests that CADMUS address these "delays" in the "Recommendations" Section. Federal regulations requires that water systems report the results to the state within (1) the first 10 days following the month in which the result is received, or (2) the first 10 days following the end of the required monitoring period as stipulated by the State, whichever of these is shortest. **(MH)**

Cadmus: Recommendation added

Page 15, Bullet 2, Sentence 2:

The draft states, "... noncommunity IOC violations were not being migrated to potential violations due to a programming error." Has this "programming error" been resolved? **(DC)**

Cadmus: comment added to report

Page 15, Bullet 2, Recommendation 2:

Some time ago, it was discovered that there was a difference in the contaminants between what is required to be collected by community systems and non community non transient systems (NTNC) in the Inorganic chemicals. A new "group" was assigned for the NTNC systems. The compliance officer must specify the contaminant "group" of potential violations to migrate. Based on the comments found for Zela Elementary School, it appears that the compliance officer forgot that there are two "groups" of Inorganic chemicals, one for community and one for NTNC. This was human error, and a work process is being developed to try and prevent this error from occurring in the future. **(DHHR)**

Cadmus: Response added to recommendation 2

PROGRAM IMPLEMENTATION

SUBSECTION G – Stage 1 DBPR

Page 16, Paragraph 1:

SDWIS/State calculates the Running Annual Average (RAA) for TTHM/HAA5/Chlorine residual. The only known problem in the computations done by SDWIS is that if a system does not monitor all the samples as required, SDWIS computes an incorrect RAA. When the system is near the MCL, the compliance officer tracks the RAA on a separate spreadsheet, just in case a required sample is skipped, and a possible MCL might be missed. The RAA in SDWIS/State can be overwritten with the correct RAA if a sample is skipped, and will compute future MCL's correctly. Data is NOT reported on standardized forms. A component of SDWIS/State, known as CDS (Compliance Decision Support) Setup, is run two or three times per week. One of the outputs of the report generated are all potential MCL/MRDL violations are identified since the last run. This tool was developed to get a "jump" as early as possible on potential violations. **(DHHR)**

Cadmus: Comment added to report

Page 16, Bullet 1, Sentence 2:

It is NOT a correct statement that all chlorine residuals for the year are required to be reported in the 4th Quarter. Chlorine residual measurements are typically reported, and entered into SDWIS/State, as concurrently as possible with the total coliform analytical results. The only known issue in computing the MRDL is that repeat TCR sample chlorine residual samples are not used in the computations of the RAA. **(DHHR)**

Cadmus: sentence deleted.

Page 16, Bullet 1, Last Sentence:

The draft states, "DHHR confirmed that violations are not assigned in these cases either, since they are not issuing MRDL violations due to limited resources." Has the difficulty of "limited resources" now been resolved? **(DC)**

Cadmus: comment not added to report since issues of limited resources are discussed throughout the report

Page 16:

1) It is unclear why the title of this section references the Stage 2 Disinfectant By-Products Rule. There is no discussion of the Stage 2 rule in this section, nor is it one of the regulations listed in *Table 2: Periods of Review* (page 6). In addition, one of the categories in *Appendix B: Summary of Discrepancies Identified by Rule* lists both Stage 1 and Stage 2 DBPR, but they did not review Stage 2 DBPR compliance.

EPA requests that the title of this subsection and the App B list be revised to reflect Stage 1 DBPR only. **(MM)**

Cadmus: Titles are retained so that reports are consistent over time when discussions of Stage 2 DBPR are added.

2) In general, EPA finds this entire section to be confusing with regard to the references that DHHR "has not yet been conducting compliance determinations for Stage 1 DBPR." For example, the fourth sentence in the first paragraph describes the process by which DHHR compliance officers calculate TTHM and HAA5 running annual averages, but then the first sentence of the first bulleted point states that "DHHR has not yet been conducting compliance determination for Stage 1 DBPR." The remainder of this paragraph refers to difficulties that DHHR is having with implementation of the *chlorine residual monitoring and MRDL requirements*. Similarly, the entire paragraph of the second bulleted point describes the problems that DHHR has had in using SSWR1 to maintain Stage 1 chlorine residual data. They again conclude the paragraph with a reference to "compliance calculations and determinations for Stage 1 are not being done." **(MM)**

PROGRAM IMPLEMENTATION

SUBSECTION G – Stage 1 DBPR

Page 16 cont.:

EPA Response: We understand that DHHR may be having difficulty in keeping up with the compliance determinations that need to be made under the Stage 1 chlorine MRDL and monitoring requirements due to limited resources and the inability of the SSWR1 calculator to function properly. While we recognize that this is a problem which needs to be addressed, it is a very different issue than implied by the statement that DHHR has not yet been conducting compliance determinations for the Stage 1 DBPR. There is nothing in the report to indicate that DHHR is not enforcing the monitoring and MCL requirements for TTHMs and HAA5s, and in fact, actually describes the process by which the compliance determinations are being made for these

byproducts. Also, a quick review of the discrepancies shows that the vast majority of them are related to the chlorine residual provisions.

We request that the final version of this report clarify and correct the statements made in this section to ensure that the reader is not left with the impression that DHHR is not implementing and enforcing the MCL provisions of the Stage 1 DBPR. **(MM)**

Cadmus: Clarified. However, since DHHR's stated position is that they are not assigning violations for this rule, the program is not, in fact, implementing and enforcing the provisions of Stage 1 DBPR. A note was added that the TTHM/HAA5 aspect of the rule is being implemented.

Page 17, Paragraph 2:

1) The second paragraph references the discrepancies involving the failure of DHHR to issue a violation in a situation in which the system collected their TTHM and HAA5 samples on different days. As stated, DHHR has taken the position that the regulations do not explicitly require that samples be collected on the same day, and so does not see this as a compliance issue as long as the samples are collected within the required monitoring period.

EPA Response: Although we agree that the *intent* of the Stage 1 Rule is that the samples be collected on the same day, we do not believe that DHHR should be required to assess a violation based on intent. If this situation were to have occurred under the Stage 2 Rule, which explicitly requires that a dual sample set be collected at each sample point, we would agree that a violation must be assessed. However, since the requirement is not explicit under the Stage 1 Rule, we do not agree that this type of discrepancy should stand. **(MM)**

Cadmus: EPA Headquarters has ruled that primacy agencies should be held to the intent of this rule as discussed. Comments added to report.

Page 17, Recommendation 1:

DHHR is considering moving the determination of those elements of the Stage 1 rule that are not currently being implemented to the District Offices, until personnel positions can be filled and those persons adequately trained, to address these issues. **(DHHR)**

Cadmus: Response added to report

SUBSECTION I – Lead and Copper Rule

Page 18, Paragraph 1, Sentence 2:

The draft states, "They have also submitted the STR LCR provisions..." Please give the definition of the acronym "STR". **(DC)**

Cadmus: STR = Short-term revisions as defined on page 12

Page 18, Paragraph 2, Sentence 1:

The draft states, "Some 90th percentile ... tap sampling are calculated by SSWR1." It appears the calculator in SSWR1 works in part or for some rules and not for others. As stated earlier in the report, DHHR does not believe the calculator works to assist with ST1 DBPR and LT1 SWTR. Please clarify either CADMUS or DHHR. **(WFJ)**

EPA/State Discussion: Request has been made for CADMUS to revise this very statement to read, "All 90th percentile . . ." or just "90th percentile."

Cadmus: Rephrased to clarify: SSWR1 is used to calculate some 90th percentile values for lead and copper tap sampling, while older samples were calculated manually.

PROGRAM IMPLEMENTATION

SUBSECTION I – Lead and Copper Rule

Page 19, Bullet 1 and Recommendation #3:

The statement was retracted (but apparently not recorded by Cadmus). The compliance officer stated that she was incorrect, the only confirmation samples were for other contaminants. No confirmation samples had ever been accepted for the Lead and Copper Rule, to her knowledge. **(DHHR)**

Cadmus: corrected. Recommendation removed.

Page 19, Bullet 3 and Recommendation #1:

In anticipation of the STRLCR, DHHR assigned a specific year for systems to monitor for lead and copper. Future versions of SDWIS/State will allow tracking of monitoring in specific years. This Recommendation was already being addressed during the on-site program review. **(DHHR)**

Cadmus: Response added to bullet

Page 19, Bullet 4:

Compliance Officers have been advised of the proper procedure and future multiple violations should be avoided. Identifying old multiple violations and deleting them from SDWIS/State will be addressed over time. **(DHHR)**

Cadmus: Response added to report

Page 19, Bullet 5:

The draft states, "Not all lead sample values and action-level exceedance (ALE) values are being reported to SDWIS/Fed. DHHR believes that FedRep is supposed to extract the information automatically from systems with populations over 3,300. In one case, the results were recorded as a summary with a 90th percentile equal to 0.00 (instead of less than the detection limit). Incorrect data entry may be the culprit."

EPA Comment: States are required to report the 90th percentile lead values (PB90) for all systems serving more than 3,300 people regardless of whether or not the lead action level was exceeded. EPA believes that the phrase "lead sample values" in the above bullet refers to PB90 values less than or equal to the lead action level as the bullet also mentions "action-level exceedance" values. EPA suggests that Cadmus change the phrase "... all lead sample values and action level exceedance (ALE) values" to "... all 90th percentile lead values."

Cadmus: Rephrased as suggested

Also reading the phrase "Not all lead sample values ..." (as it has not been quantified) seems to imply that WV has a problem with entering the PB90 data. This was true in a 2007 report on data completeness from EPA HQ which indicated that only 35.5% of PWSs greater than 3,300 in WV had PB90 data in SDWIS/FED for the 2005-2007 period. In EPA HQ's 2008 report on data completeness for WV for the same period indicates a great improvement to 100% complete. EPA was able to confirm this with data that Jackie Pine (EPA Office of Program Support) provided when asked to look at the data completeness issue for Region III states.

Without knowing how Cadmus made their determination, it is difficult to make additional judgments. EPA suggests that it would be fair to have the report reflect that there had been a problem with the PB90 data in WV and that the state had made significant corrections. **(GR)**

Cadmus: Region 3's observations added to report

SUBSECTION J – SWTR, IESWTR, LT1 SWTR, FBRR

Page 20:

The title of this subsection in the draft DV report includes LT2 which is not reflected anywhere else in the report. EPA requests that the title of this subsection be revised to omit LT2. **(WFJ)**

Cadmus: Titles are retained so that reports are consistent over time when discussions of LT2 ESWTR are added.

PROGRAM IMPLEMENTATION

SUBSECTION J – SWTR, IESWTR, LT1 SWTR, FBRR

Pages 20-21:

With regard to the comments pertaining to the LT1 provisions, EPA agrees that Cadmus has provided valid comments that DHHR needs to address, although EPA needs to have further discussion regarding the issue of recording turbidity levels when continuous monitoring is being performed. **(MM)**

Cadmus: Comment added to report in Bullet 4 with other discussion

Page 21, Bullet 3:

DHHR is not currently issuing turbidity exceedences. DHHR is considering moving the determination of those elements of the rules that are not currently being implemented to the District Offices, until personnel positions can be filled and those persons adequately trained, to address these issues. **(DHHR)**

Cadmus: response added to report

Page 21, Bullet 4 and Recommendation #2:

DHHR disagrees with the requirements as outlined. It is clear in the regulations that continuous chlorine residual monitoring is not required to be reported, only the minimum residual measured each day. The instructions on the Monthly Operational Report instruct the operator to write across form EW 90-B that they are performing continuous monitoring and record the minimum residual on form EW-90. The exact requirements can be found at 40 CFR §141.75 (b)(2)(i): "for each day, the lowest measurement of residual disinfectant concentration in mg/l in water entering the distribution system." This requirement has not changed with subsequent rules (IESWTR or LT1ESWTR). It is also clear that continuous monitoring is not required to be reported for turbidity. The SWTR states that turbidity measurements (see 40 CFR 141.74 (c)(1)) "...are to be performed on representative samples of the system's filtered water every four hours....". DHHR takes the position that if water is not actively being filtered, the sample is not representative. DHHR requires samples to be collected only during the time the water is being filtered. Specific reporting requirements are found in 40 CFR §141.75 (b)(1) (i) thru (iii): The total number of filtered water turbidity measurements taken during the month, the number and percentage of filtered water turbidity measurements taken during the month which are less than or equal to the turbidity limits specified, and the date and vlue of any turbidity measurements taken during the month that exceed 5 NTU. Our form EW-90A has been developed to incorporate the reporting requirements listed, in addition to the actual readings measured, more than what is required by the rule. The IESWTR and LT1ESWTR did not change the reporting requirements for the combined filter effluent (it changed the turbidity treatment technique standards only), but did create new reporting requirements for individual filter monitoring. The IESWTR reporting

requirements are found in 40 CFR §141.175 and for LT1ESWTR in 40 CFR § 141.570. The only time the actual continuous monitoring results are required to be reported only under the IESWTR if one of the conditions listed in 40 CFR § 141.175 (b) (1) thru (4) are met. There appears to be no parallel requirement under the LT1ESWTR. DHHR understands the combination of rules to have two reporting standards: one for the combined filter effluent , which is a minimum of one sample every four hours, where the combined filter effluent standards of 1 NTU and 0.3 NTU are applied for conventional and direct filtration (the vast majority of our subpart H systems). DHHR interpretation is that the later rules did NOT change the monitoring frequency for combined filter effluent. The checklist developed on EW-90A page 2 follows the regulations cited above, when it was developed. **(DHHR)**

Cadmus: Comment added to report

APPENDIX C: Summary of Discrepancies Identified by System - DBPR

The majority of these discrepancies involve failure to determine compliance for the chlorine residual monitoring and MRDL provisions of the Stage 1 DBPR. EPA R3 will follow up with DHHR in an attempt to address resource issues and to assist them in identifying less resource intensive mechanisms with which to track chlorine residual monitoring and in calculating MRDL compliance. Other discrepancies involve late reporting (by several days to a week), and not issuing a violation for samples collected on different days (addressed above). **(MM)**

Cadmus: Added to Stage 1 DBPR Successes and Challenges